
MIRSE (TM)

Release 3.1a John F. Collins, Blocomputing Research Unit.
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Mparch_n n.a. - n.a. database search, using Smith-Waterman algorithm

Run on: Tue Jun 27 15:49:06 2000; Maspar time 223.07 Seconds
1197.397 Million cell updates/sec

Tabular output not generated.

Title: >US-08-951-733-13
Description: (1-2848) from US08951733.seq
Perfect Score: 2848
N.A. Sequence: 1 CACGCGTCGCGGCGAGCGCTG.....GATCGCGGCCACAGCGCTAT 2848
Comp: GTGCGGAGGCGCGCTGCGGAC.....CTAGGCGCGGTCGCGGATA

Scoring table: TABLE default
Gap 6

Mmatch STD : Dbase 0; Query 0

Searched: 176463 seqs, 46893068 bases x 2

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: n-issued
1:5A_COMB 2:5B_COMB 3:5C_COMB 4:5D_COMB 5:PCT9_COMB
6:backfilled1

Statistics: Mean 9.315; Variance 5.675; scale 1.641

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	67	2.4	7218	2	US-08-232-Sequence 14, Applicati	5.49e-25
2	49	1.7	7218	2	US-08-232-Sequence 14, Applicati	4.49e-14
3	42	1.5	215	1	US-08-238-Sequence 5, Applicatio	5.02e-10
4	44	1.5	965	3	US-08-388-Sequence 22, Applicati	6.74e-09
5	40	1.4	965	3	US-08-388-Sequence 5, Applicatio	3.11e-07
6	37	1.3	215	1	US-08-238-Sequence 243, Applicat	4.76e-01
7	25	0.9	68	1	US-07-977-Sequence 142, Applicat	4.76e-01
8	25	0.9	69	1	US-08-471-Sequence 94, Applicati	1.59e-01
9	26	0.9	74	4	US-08-488-Sequence 94, Applicati	1.59e-01
10	26	0.9	74	4	PCT-US95-1-Sequence 100, Applicat	4.76e-01
11	25	0.9	74	4	PCT-US95-1-Sequence 100, Applicat	4.76e-01
12	25	0.9	74	4	US-08-488-Sequence 100, Applicat	1.59e-01
13	26	0.9	74	5	PCT-US95-1-Sequence 100, Applicat	1.59e-01
14	26	0.9	74	5	PCT-US95-1-Sequence 94, Applicati	1.59e-01
15	26	0.9	74	4	US-08-488-Sequence 100, Applicat	1.59e-01
16	26	0.9	74	4	US-08-488-Sequence 94, Applicati	1.59e-01
17	25	0.9	75	5	PCT-US95-1-Sequence 99, Applicati	4.76e-01
18	25	0.9	75	5	PCT-US95-1-Sequence 99, Applicati	4.76e-01
19	25	0.9	75	4	US-08-488-Sequence 99, Applicati	4.76e-01

20	26	0.9	81	5	PCT-US95-1-Sequence 92, Applicati	1.59e-01
21	26	0.9	81	4	US-08-488-Sequence 92, Applicati	1.59e-01
22	25	0.9	81	4	US-08-488-Sequence 98, Applicati	4.76e-01
23	25	0.9	81	5	PCT-US95-1-Sequence 98, Applicati	4.76e-01
24	26	0.9	81	5	PCT-US95-1-Sequence 98, Applicati	1.59e-01
25	26	0.9	81	4	US-08-488-Sequence 92, Applicati	1.59e-01
26	26	0.9	81	5	PCT-US95-1-Sequence 92, Applicati	1.59e-01
27	26	0.9	81	4	US-08-488-Sequence 98, Applicati	1.59e-01
28	26	0.9	82	4	US-08-488-Sequence 97, Applicati	1.59e-01
29	26	0.9	82	5	PCT-US95-1-Sequence 97, Applicati	1.59e-01
30	26	0.9	82	5	PCT-US95-1-Sequence 97, Applicati	1.59e-01
31	26	0.9	82	4	US-08-488-Sequence 97, Applicati	1.59e-01
32	25	0.9	105	1	US-07-865-Sequence 13, Applicati	4.76e-01
33	25	0.9	242	2	US-08-273-Sequence 1, Applicatio	4.76e-01
34	25	0.9	1004	5	PCT-US95-0-Sequence 7, Applicatio	4.76e-01
35	25	0.9	1004	3	US-08-465-Sequence 8, Applicatio	4.76e-01
36	25	0.9	1288	3	US-08-440-Sequence 9, Applicatio	4.76e-01
37	25	0.9	1386	5	PCT-US95-0-Sequence 2, Applicatio	4.76e-01
38	25	0.9	1386	3	US-08-465-Sequence 3, Applicatio	4.76e-01
39	25	0.9	1611	3	PCT-US95-0-Sequence 3, Applicatio	4.76e-01
40	25	0.9	7175	4	US-08-223-Sequence 8, Applicatio	4.76e-01
41	25	0.9	7175	4	US-08-193-Sequence 8, Applicatio	4.76e-01
42	25	0.9	7175	3	US-08-455-Sequence 8, Applicatio	4.76e-01
43	25	0.9	7362	3	US-08-455-Sequence 7, Applicatio	4.76e-01
44	25	0.9	7362	4	US-08-193-Sequence 7, Applicatio	4.76e-01
45	25	0.9	7362	4	US-08-149-Sequence 7, Applicatio	4.76e-01

ALIGNMENTS

RESULT 1
ID US-08-232-463-14 STANDARD; DNA; UNC; 7218 BP.
AC xxxxxx
DT Sequence 14, Application US/08232463
DE Sequence 14, Application US/08232463
CC Patent No. 5670367
CC GENERAL INFORMATION:
CC APPLICANT: DORNER, F.
CC APPLICANT: SCHEIFLINGER, F.
CC APPLICANT: FALKNER, F. G.
CC TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
CC NUMBER OF SEQUENCES: 52
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Foley & Lardner
CC STREET: 1800 Diagonal Road, Suite 500
CC City: Alexandria
CC STATE: VA
CC COUNTRY: USA
CC ZIP: 22313-0299
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/232,463
CC FILING DATE:
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US/07/935,313
CC FILING DATE:
CC APPLICATION NUMBER: EP 91 114 300.6
CC FILING DATE: 26-AUG-1991
CC ATTORNEY/AGENT INFORMATION:
CC NAME: BENT, Stephen A.
CC REGISTRATION NUMBER: 29,768
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (703)836-9300
CC TELEPHONE: (703)683-4109
CC TELEX: 899149
CC INFORMATION FOR SEQ ID NO: 14:

[illegible]

```

CC      FILING DATE:
CC      APPLICATION NUMBER: EP 91 114 300.6
CC      FILING DATE: 26-AUG-1991
CC      ATTORNEY/AGENT INFORMATION:
CC      NAME: BENT, Stephen A.
CC      REGISTRATION NUMBER: 29,768
CC      REFERENCE/DOCKET NUMBER: 30472/114 IMMU
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE: (703)836-9300
CC      TELEFAX: (703)683-4109
CC      TELEX: 899149
CC      INFORMATION FOR SEQ ID NO: 14:
CC      SEQUENCE CHARACTERISTICS:
CC      LENGTH: 7218 base pairs
CC      TYPE: nucleic acid
CC      STRANDEDNESS: single
CC      TOPOLOGY: linear
CC      IMMEDIATE SOURCE:
CC      CLONE: pTZ9PC-F15
CC      SEQUENCE 7218 BP; 1944 A; 1491 C; 1486 G; 1929 T; 368 OTHER.
SQ
Query Match      1.7%; Score 49; DB 2; Length 7218;
Best Local Similarity 2.0%; Pred. No. 4.48e-14;
Matches      6; Conservative 165; Mismatches 122; Indels 0; Gaps 0;

Db 1150 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1209
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Cp 2079 CCGGCGCCGCTGATGACGACGCTGACAGACGCTTCACCTCGAGGTGAGACGCTC 2020
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1210 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1269
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Cp 2019 GGCCTCTTCTCTGCGGAGCTGCGCTCCACGACGATGTCACATGTCACAAATCGG 1960
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1270 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1329
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Cp 1959 CCGGACGCCGTCAGAGCTTGAGGAGTGAAGCGAGCTGAGCTACGACGAGCGCGGCTCGGC 1900
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1330 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1389
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Cp 1899 TTCCGAGGAGCTGACCTGACTCTGCTCCGACAGCTCCCGCAGCTGACACCTCTTCAAGT 1840
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1390 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYGTACCAA 1442
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Cp 1839 CTGCTGATTCGAATGCTTTCGCAACTGCTCCAGACACTTCCGCGTAGAAAA 1787
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RESULT      3
ID      US-08-238-163-5 STANDARD; DNA; UNC; 215 BP.
AC      xxxxxx
DT
DE      Sequence 5, Application US/08238163
CC      Sequence 5, Application US/08238163
CC      Patent No. 5569830
CC      GENERAL INFORMATION:
CC      APPLICANT: BENNETT, Alan
CC      APPLICANT: LABAVITCH, John M.
CC      APPLICANT: POWELL, Ann
CC      APPLICANT: STOTZ, Henrik
CC      TITLE OF INVENTION: PLANT INHIBITORS OF FUNGAL
CC      TITLE OF INVENTION: POLYGALACTURONASES AND THEIR USE TO CONTROL FUNGAL DISEASE
CC      NUMBER OF SEQUENCES: 24
CC      CORRESPONDENCE ADDRESS:
CC      ADDRESSEE: Townsend and Townsend Kourile and Crew
CC      STREET: Steuart Street Tower, One Market Plaza
CC      CITY: San Francisco
CC      STATE: California
CC      COUNTRY: US
CC      ZIP: 94105-1493
CC      COMPUTER READABLE FORM:
CC      MEDIUM TYPE: Floppy disk
CC      COMPUTER: IBM PC compatible
CC      OPERATING SYSTEM: PC-DOS/MS-DOS
CC      SOFTWARE: PatentIn Release #1.0, Version #1.25

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CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/388,672A
CC FILING DATE: 14-FEB-1995
CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Hanson, No. 5795961man D.
CC REGISTRATION NUMBER: 30,946
CC REFERENCE/DOCKET NUMBER: LUD 5409
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 212-688-9200
CC FAX: 212-838-3884
CC INFORMATION FOR SEQ ID NO: 22:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 965 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: unknown
CC TOPOLOGY: unknown
CC MOLECULE TYPE: DNA (genomic)
SQ SEQUENCE 965 BP; 192 A; 170 C; 226 G; 200 T; 177 OTHER.
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Query Match 1.5%; Score 44; DB 3; Length 965;
Best Local Similarity 14.1%; Pred.No. 3.62e-11;

Matches 24; Conservative 85; Mismatches 59; Indels 2; Gaps 2.

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Db    776 GSTKKGURHUHVSGCVSTSTCTASDYYTTSYWGVMVGRMGDXGGGYTNNGKRGVTM 835 -  
CP    1522 GCCGTTCGTTGTCCTCGTAGGCCCAAGACCTTGGGGCACCAGCAGCGCACGAGGCC  
  
Db    836 ADTSSRSASYATADTA-VYYCYVRGSYSDDSDGDYGWGTIVTVS-SHUVKDNTSSSASY 893  
CP    1462 GCACGAACCCGNACACCGACGAGAAGGGCGTGTGTCTGGCGGAGCATGCACCAAGCGGAC 1403
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Db 894 GDRTVCSSITTHNGNITYTWKGAKRYSNRGVSRSGSGCTDYTTS 943
CP 1402 GGCGGCTGTGTCTCTCTCCCTCGGGGGCCGACACAGAACCTCGGGGCTTC 1353

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RESULT#      5  
ID            US-08-388-672A-22 STANDARD; DNA; UNC; 965 BP.  
AC           xxxxxx  
DE          Sequence 22, Application US/08388672A  
CC          Sequence 22, Application US/08388672A  
CC          Patent No. 5795961  
CC          GENERAL INFORMATION:  
CC APPLICANT: Wallace, T. Paul  
CC APPLICANT: Harris, William J.  
CC APPLICANT: Carr, Frank J.  
CC APPLICANT: Old, Lloyd J.  
CC APPLICANT: Welt, Sydney  
CC APPLICANT: Kitamura, Kunio  
CC TITLE OF INVENTION: Recombinant Human Anti-Lewis B  
CC TITLE OF INVENTION: Antibodies  
CC NUMBER OF SEQUENCES: 25  
CC CORRESPONDENCE ADDRESS:  
CC ADDRESSEE: Felte and Lynch  
CC STREET: 805 Third Avenue  
CC CITY: New York  
CC STATE: New York  
CC COUNTRY: U.S.A.  
CC ZIP: 10022  
CC COMPUTER READABLE FORM:  
CC MEDIUM TYPE: Floppy disk  
CC COMPUTER: IBM PC compatible  
CC OPERATING SYSTEM: PC-DOS/MS-DOS  
CC SOFTWARE: Patentin Release #1.0, Version #1.30  
CC CURRENT APPLICATION DATA:  
CC APPLICATION NUMBER: US/08/388,672A  
CC FILING DATE: 14-FEB-1995  
CC CLASSIFICATION:  
CC ATTORNEY/AGENT INFORMATION:
```

CC NAME: Hanson, No. 5795961man D.
CC REGISTRATION NUMBER: 30,946
CC REFERENCE/DOCKET NUMBER: LUD 5409
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 212-688-9200
CC TELEFAX: 212-838-3884
CC INFORMATION FOR SEQ ID NO: 22:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 965 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: unknown
CC TOPOLOGY: unknown
CC MOLECULE TYPE: DNA (genomic)
CC SEQUENCE 965 BP; 192 A; 170 C; 226 G; 200 T; 177 OTHER.

Query Match 1.4%; Score 40; DB 3; Length 965;
Best Local Similarity 11.8%; Pred. No. 6,74e-09;
Matches 15; Conservative 66; Mismatches 46; Indels 0; Gaps 0;

DB 826 YNCKRRTVMTSSNSRSSTVTAADTAIVYVCVGRSYDSDGDYWGTTVTVSSHUVKDM 885
OY 92 CGGTGGCTCCCTGCTGCCAGCCACTACCGCAGGTGCTGCCGCTGCCTGCTGC 151
DB 886 TSSSSAVGDRVTTGSRSTTHGNGNTYWKAKYRVSNSGVSRSGSSTGDTTSSD 945
OY 152 GCGCCTGGGGCCCGGCGGTGGCTGGTGCAGCGGCGGCGGCGGCTTTCCGCG 211
DB 946 ATYYCGT 952
OY 212 CGCTGCT 218

RESULT 6
ID US-08-238-163-5 STANDARD; DNA; UNC; 215 BP.
AC xxxxxx

DE Sequence 5, Application US/08238163
CC Sequence 5, Application US/08238163
CC Patent No. 5569830
CC GENERAL INFORMATION:
CC APPLICANT: BENNETT, Alan
CC APPLICANT: LABAVITCH, John M.
CC APPLICANT: POWELL, Ann
CC APPLICANT: STOTZ, Henrik
CC TITLE OF INVENTION: PLANT INHIBITORS OF FUNGAL
CC TITLE OF INVENTION: POLYGALACTURONASES AND THEIR USE TO CONTROL FUNGAL DISEASE
CC NUMBER OF SEQUENCES: 24
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend Kourile and Crew
CC STREET: Stewart Street Tower, One Market Plaza
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: US
CC ZIP: 94105-1493
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/238,163
CC FILING DATE: 03-MAY-1994
CC CLASSIFICATION: 800
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Bastian, Kevin L.
CC REGISTRATION NUMBER: 34,774
CC REFERENCE/DOCKET NUMBER: 2307E-540
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 543-9600
CC TELEFAX: (415) 543-5043
CC INFORMATION FOR SEQ ID NO: 5:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 215 base pairs

CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: unknown
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: misc.feature
CC LOCATION: 1..215
CC OTHER INFORMATION: /standard_name="Deduced amino acid
CC OTHER INFORMATION: sequence of PGIP from bean."
CC SEQUENCE 215 BP; 15 A; 8 C; 25 G; 26 T; 141 OTHER.

Query Match 1.3%; Score 37; DB 1; Length 215;
Best Local Similarity 14.2%; Pred. No. 3.11e-07;
Matches 22; Conservative 64; Mismatches 68; Indels 1; Gaps 1;

DB 50 YRVNDSGNKXSSANYVNGVNNVGAKTHTYHTVNSGADSKTYVDSYNASGTSNCG 109
CP 1139 CGAGCGCCAGTCAAGCTGGCCCTCAGAGCTGAGTAGAGAGAGGCGCCAGCTGCTCC 1080
DB 110 TDGNRSADSYSSSKTA-MTSNRRTGTANNAVDSRNMGDASVSDKNTKHAKSADK 168
CP 1079 TTGTGCTGTAGAGAGTAGAGAGAGTGTGCTGTGCGCGCTACACCGGGGACAAAGCGTG 1020
DB 169 VGSKNNGDRNNRYGTGTRKSNVSNNGGKRPYSS 203
CP 1019 TCCACGAGAGTGTGTCGCCGCGATGTGATGGGG 985

RESULT 7
ID US-07-977-284A-243 STANDARD; DNA; UNC; 68 BP.
AC xxxxxx

DE Sequence 243, Application US/07977284A
CC Sequence 243, Application US/07977284A
CC Patent No. 5558988
CC GENERAL INFORMATION:
CC APPLICANT: PROCKOP, Darwin J.
CC APPLICANT: Ala-Kokko, Leena
CC APPLICANT: Williams, Charlene J.
CC APPLICANT: Riltaniemi, Pertti
CC APPLICANT: Baldwin, Clinton
CC APPLICANT: Hopkinson, Ian
CC APPLICANT: Ahmed, Niofer Nina
CC TITLE OF INVENTION: METHODS OF DETECTING A GENETIC
CC TITLE OF INVENTION: PREDISPOSITION FOR OSTEOARTHRITIS
CC NUMBER OF SEQUENCES: 261
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Woodcock, Washburn, Kurtz, Mackiewicz & No. 5558988rls
CC STREET: One Liberty Place, 46th floor
CC CITY: Philadelphia
CC STATE: PA
CC COUNTRY: USA
CC ZIP: 19103
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Wordperfect 5.1
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/07/977,284A
CC FILING DATE: 13-NOV-1992
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER:
CC FILING DATE:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Deluca, Mark
CC REGISTRATION NUMBER: 33,229
CC REFERENCE/DOCKET NUMBER: TUD-0697
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (215) 568-3100
CC TELEFAX: (215) 568-3439
CC INFORMATION FOR SEQ ID NO: 243:

Query Match 0.9%; Score 25; DB 4; Length 74;
Best Local Similarity 7.7%; Pred. No. 4.76e-01;
Matches 5; Conservative 20; Mismatches 40; Indels 0; Gaps 0;

DB 6 VNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 65
QY 945 CCACTCCCAACCCATCGTGGCCGCCAGCACAGCGGGCCCCCATCCACATCGCGGCC 1004

DB 66 ACCAC 70
11111
QY 1005 ACCAC 1009

RESULT 13
ID PCT-US95-11934-100 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx

DE Sequence 100, Application PC/TUS9511934
CC Sequence 100, Application PC/TUS9511934
CC GENERAL INFORMATION:
CC APPLICANT: CytoGen Corporation
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036

CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US95/11934
CC FILING DATE: 20-SEP-1995

CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistrock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-196-228
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TELEX: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 100:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA (genomic)
CC SEQUENCE 74 BP; 6 A; 6 C; 1 G; 1 T; 60 OTHER.

Query Match 0.9%; Score 26; DB 5; Length 74;
Best Local Similarity 10.3%; Pred. No. 1.59e-01;
Matches 7; Conservative 20; Mismatches 41; Indels 0; Gaps 0;

DB 3 AGAVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 62
CP 541 AGAGCGGGCGGTGCGCAGAGGTGACGACGAGTGTGCGCCACGCGGCGAGCAGCA 482

DB 63 VNNACAC 70
11111
CP 481 GCGCCCGAC 474

RESULT 14
ID PCT-US95-11934-94 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx
DT

DE Sequence 94, Application PC/TUS9511934
CC Sequence 94, Application PC/TUS9511934
CC GENERAL INFORMATION:
CC APPLICANT: CytoGen Corporation
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036

CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US95/11934
CC FILING DATE: 20-SEP-1995

CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistrock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-196-228
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TELEX: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 94:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA (genomic)
CC SEQUENCE 74 BP; 3 A; 4 C; 3 G; 1 T; 63 OTHER.

Query Match 0.9%; Score 26; DB 5; Length 74;
Best Local Similarity 11.4%; Pred. No. 1.59e-01;
Matches 8; Conservative 19; Mismatches 43; Indels 0; Gaps 0;

DB 3 GAGNNBN 62
CP 540 GAGCGGCGACGTCGCGAGCGAGTGAACACACACGTCGTGCGCCACGCGGCGAGCAG 481

DB 63 BNNBNACGCC 72
11111
CP 480 CCGCCACGCC 471

RESULT 15
ID US-08-488-161-100 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx

DE Sequence 100, Application US/08488161
CC Sequence 100, Application US/08488161
CC Patent No. 5885577

CC GENERAL INFORMATION:
CC APPLICANT: Alvarez, Vernon L.
CC TITLE OF INVENTION: Antigen Binding Peptides (Abtides) From
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036

CC COMPUTER READABLE FORM:

CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/488,161
CC FILING DATE: 07-JUN-1995
CC CLASSIFICATION: 436
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-176
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TELEX: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 100:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA
SQ SEQUENCE 74 BP; 6 A; 6 C; 1 G; 1 T; 60 OTHER.

Query Match 0.98; Score 26; DB 4; Length 74;
Best Local Similarity 10.38; Pred. No. 1.59e-01;
Matches 7; Conservative 20; Mismatches 41; Indels 0; Gaps 0;

Db 3 AGAVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 62
|||:
CP 541 AGAGCGCGGACGAGCGTGACAGCAGCGTGTGCGCCACGCGGCGCAGCAGCA 482

Db 63 VNNACCAC 70
: : : : :
CP 481 GCCCCAC 474

Search completed: Tue Jun 27 15:57:04 2000
Job time : 478 secs.

WORLDWIDE
(TM)

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MPSrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Tue Jun 27 14:57:14 2000; MasPar time 11.54 Seconds
Tabular output not generated. 834.872 Million cell updates/sec

Title: >US-08-951-733-14
Description: (1-949) from US08951733.pep
Perfect Score: 7113
Sequence: 1 HASGQRCVLLRTWEALAPAT.....PVEDEALGTAFVQMPAHGL 949

Scoring table: PAM 150
Gap 11

Searched: 106580 seqs, 10152877 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: a-issued
1:5h_COMB 2:5h_COMB 3:PCT9_COMB 4:backfile1

Statistics: Mean 36.808; Variance 182.308; scale 0.202

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	125	1.8	402	1	US-08-480-Sequence 8, Applicatio	9.75e-01
2	125	1.8	402	2	US-08-901-Sequence 8, Applicatio	9.75e-01
3	125	1.8	402	1	US-08-462-Sequence 21, Applicati	9.75e-01
4	125	1.8	402	1	US-07-901-Sequence 11, Applicati	9.75e-01
5	125	1.8	402	2	US-08-459-Sequence 6, Applicatio	9.75e-01
6	125	1.8	402	1	US-08-278-Sequence 21, Applicati	9.75e-01
7	125	1.8	402	1	US-08-447-Sequence 29, Applicati	9.75e-01
8	125	1.8	402	1	US-08-155-Sequence 21, Applicati	9.75e-01
9	125	1.8	402	1	US-08-451-Sequence 21, Applicati	9.75e-01
10	125	1.8	402	1	US-08-643-Sequence 21, Applicati	9.75e-01
11	125	1.8	402	1	US-08-479-Sequence 8, Applicatio	9.75e-01
12	125	1.8	402	1	US-08-147-Sequence 29, Applicati	9.75e-01
13	125	1.8	402	1	US-07-841-Sequence 8, Applicatio	9.75e-01
14	125	1.8	402	3	PCT-US93-1-Sequence 21, Applicati	9.75e-01
15	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
16	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
17	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
18	125	1.8	402	1	US-08-643-Sequence 21, Applicati	9.75e-01
19	125	1.8	402	1	US-08-406-Sequence 21, Applicati	9.75e-01
20	125	1.8	402	3	PCT-US92-0-Sequence 21, Applicati	9.75e-01
21	125	1.8	402	3	PCT-US93-0-Sequence 11, Applicati	9.75e-01
22	125	1.8	402	2	US-08-449-Sequence 29, Applicati	9.75e-01
23	125	1.8	402	1	US-08-206-Sequence 4, Applicatio	9.75e-01

24	125	1.8	402	2	US-08-445-Sequence 21, Applicati	9.75e-01
25	125	1.8	402	3	PCT-US93-0-Sequence 6, Applicatio	9.75e-01
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27	125	1.8	402	3	PCT-US93-0-Sequence 21, Applicati	9.75e-01
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29	118	1.7	399	1	US-07-901-Sequence 13, Applicati	2.82e+00
30	118	1.7	399	1	US-08-278-Sequence 23, Applicati	2.82e+00
31	118	1.7	399	1	US-08-480-Sequence 10, Applicatio	2.82e+00
32	118	1.7	399	2	US-08-459-Sequence 8, Applicatio	2.82e+00
33	118	1.7	399	3	PCT-US91-0-Sequence 6, Applicatio	2.82e+00
34	118	1.7	399	3	PCT-US93-0-Sequence 23, Applicati	2.82e+00
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36	118	1.7	399	3	PCT-US93-0-Sequence 13, Applicati	2.82e+00
37	118	1.7	399	3	PCT-US93-0-Sequence 23, Applicati	2.82e+00
38	118	1.7	399	3	PCT-US93-1-Sequence 10, Applicati	2.82e+00
39	118	1.7	399	1	US-08-643-Sequence 23, Applicati	2.82e+00
40	118	1.7	399	1	US-08-447-Sequence 27, Applicati	2.82e+00
41	118	1.7	399	1	US-08-451-Sequence 23, Applicati	2.82e+00
42	118	1.7	399	1	US-08-643-Sequence 23, Applicati	2.82e+00
43	118	1.7	399	2	US-08-449-Sequence 27, Applicati	2.82e+00
44	118	1.7	399	1	US-08-479-Sequence 10, Applicati	2.82e+00
45	118	1.7	399	3	PCT-US92-0-Sequence 23, Applicati	2.82e+00

ALIGNMENTS

RESULT	ID	US-08-480-528A-8	STANDARD;	PRT;	402 AA.
1	CC	Sequence 8, Application US/08480528A			
2	CC	Patent No. 5652118			
3	CC	GENERAL INFORMATION:			
4	CC	APPLICANT: OPPERMAN, HERMANN			
5	CC	APPLICANT: OZKAYNAK, ENGİN			
6	CC	APPLICANT: KUBERASAPATH, THANGAVEL			
7	CC	APPLICANT: RUEGER, DAVID C.			
8	CC	APPLICANT: PANG, ROY H.L.			
9	CC	APPLICANT: COHEN, CHARLES M.			
10	CC	TITLE OF INVENTION: OP3-INDUCED MORPHOGENESIS			
11	CC	NUMBER OF SEQUENCES: 13			
12	CC	CORRESPONDENCE ADDRESSES:			
13	CC	ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES			
14	CC	STREET: 45 SOUTH STREET			
15	CC	CITY: HOPKINTON			
16	CC	STATE: MA			
17	CC	COUNTRY: USA			
18	CC	ZIP: 01748			
19	CC	COMPUTER READABLE FORM:			
20	CC	MEDIUM TYPE: Floppy disk			
21	CC	COMPUTER: IBM PC compatible			
22	CC	OPERATING SYSTEM: PC-DOS/MS-DOS			
23	CC	SOFTWARE: Patent Release #1.0, Version #1.30			
24	CC	CURRENT APPLICATION DATA:			
25	CC	APPLICATION NUMBER: US/08/480,528A			
26	CC	FILING DATE: 07-JUN-1995			
27	CC	CLASSIFICATION: 435			
28	CC	ATTORNEY/AGENT INFORMATION:			
29	CC	NAME: FENTON ESQ., GILLIAN M.			
30	CC	REGISTRATION NUMBER: 36,508			
31	CC	REFERENCE/DOCKET NUMBER: CRP-076FW			
32	CC	TELECOMMUNICATION INFORMATION:			
33	CC	TELEPHONE: (617) 248-7560			
34	CC	TELEFAX: (617) 248-7100			
35	CC	INFORMATION FOR SEQ ID NO: 8:			
36	CC	SEQUENCE CHARACTERISTICS:			
37	CC	LENGTH: 402 amino acids			
38	CC	TYPE: amino acid			

CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
SQ SEQUENCE 402 AA; 44764 MW; 803627 CN;
Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
Db 12 GLALCALGGGPGRLPP-GC-PQRLG-ARERDVOREILAVGLPGR-PRPRAPPAAS 67
Qy 194 GPPLYOLGAATQA-RPPPHASGPRRLGCERAMNHSVREAGVPLGLPAPGARRRGGSASR 252
Db 68 RLP 70
Qy 253 SLP 255
RESULT 2
ID US-08-901-200A-8 STANDARD: PRT; 402 AA.
AC xxxxxx
XX Sequence 8, Application US/08901200A
DE Patent No. 5854071
CC Sequence 8, Application US/08901200A
CC Patent No. 5854071
CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC APPLICANT: COHEN, CHARLES M.
CC TITLE OF INVENTION: OP3-INDUCED MORPHOGENESIS
CC NUMBER OF SEQUENCES: 15
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/901,200A
CC FILING DATE: 28-JUL-1997
CC CLASSIFICATION: 530
CC ATTORNEY/AGENT INFORMATION:
CC NAME: MEYERS, THOMAS C.
CC REGISTRATION NUMBER: 36,989
CC REFERENCE/DOCKET NUMBER: CRP-076DV2
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (508) 435-9001
CC TELEFAX: (508) 435-6951
CC INFORMATION FOR SEQ ID NO: 8:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
SQ SEQUENCE 402 AA; 44698 MW; 800499 CN;
Query Match 1.8%; Score 125; DB 2; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
Db 12 GLALCALGGGPGRLPP-GC-PQRLG-ARERDVOREILAVGLPGR-PRPRAPPAAS 67

Qy 194 GPPLYOLGAATQA-RPPPHASGPRRLGCERAMNHSVREAGVPLGLPAPGARRRGGSASR 252
Db 68 RLP 70
Qy 253 SLP 255
RESULT 3
ID US-08-462-623-21 STANDARD: PRT; 402 AA.
AC xxxxxx
XX Sequence 21, Application US/08462623
DE Patent No. 5738107
CC Sequence 21, Application US/08462623
CC Patent No. 5738107
CC GENERAL INFORMATION:
CC APPLICANT: COHEN, CHARLES M.
CC APPLICANT: CHARETTE, MARC F.
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: PANG, ROY H.L.
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: SMART, JOHN E.
CC TITLE OF INVENTION: MORPHOGEN TREATMENT OF GASTROINTESTINAL
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/462,623
CC FILING DATE:
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/445,882
CC FILING DATE: 22-MAY-1995
CC ATTORNEY/AGENT INFORMATION:
CC NAME: FENTON ESQ., GILLIAN M.
CC REGISTRATION NUMBER: 36,508
CC REFERENCE/DOCKET NUMBER: CRP-074CN
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (508) 435-9001
CC TELEFAX: (508) 435-6951
CC INFORMATION FOR SEQ ID NO: 21:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
SQ SEQUENCE 402 AA; 44764 MW; 803627 CN;
Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
Db 12 GLALCALGGGPGRLPP-GC-PQRLG-ARERDVOREILAVGLPGR-PRPRAPPAAS 67
Qy 194 GPPLYOLGAATQA-RPPPHASGPRRLGCERAMNHSVREAGVPLGLPAPGARRRGGSASR 252

Db 68 RLP 70
QY 253 SLP 255

RESULT 4
ID US-07-901-703-11 STANDARD: PRT; 402 AA.

Sequence 11, Application US/07901703

CC Sequence 11, Application US/07901703
CC Patent No. 5344654
CC GENERAL INFORMATION:
CC APPLICANT: RUEGER, DAVID C
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZAKYNAK, ENGIN
CC TITLE OF INVENTION: PROSTHETIC DEVICES HAVING ENHANCED
CC TITLE OF INVENTION: OSTEOGENIC PROPERTIES
CC NUMBER OF SEQUENCES: 22
CC CORRESPONDENCE ADDRESSES:
CC ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC STREET: EXCHANGE PLACE, 53 STATE STREET
CC CITY: BOSTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 02109
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent in Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/07/901,703
CC FILING DATE: 19920616
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, ESO, EDMUND R
CC REGISTRATION NUMBER: 27,829
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 617/248-7000
CC INFORMATION FOR SEQ ID NO: 11:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: AMINO ACID
CC MOLECULE TYPE: linear
CC TOPOLOGY: linear
CC SEQUENCE 402 AA; 44698 MW; 800499 CN;

Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;

Db 12 GATCAGGGGGLRPP-GC-PORLIG-ARERDVOREILAVLGPR-PPRPAPAS 67
QY 194 GPPVYOLGAATQA-RPPHPSGPRRLGGERAMNSVREAGVPLGLPAGARRGGASR 252
Db 68 RLP 70
QY 253 SLP 255

RESULT 5
ID US-08-459-346-6 STANDARD: PRT; 402 AA.
AC xxxxxx
XX
DT

XX Sequence 6, Application US/08459346
DE Sequence 6, Application US/08459346
XX Patent No. 5834179
CC GENERAL INFORMATION:
CC APPLICANT: JONES, WILLIAM K
CC APPLICANT: TUCKER, RONALD F
CC APPLICANT: RUEGER, DAVID C
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZAKYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC TITLE OF INVENTION: NOVEL MORPHOGENIC PROTEIN COMPOSITIONS
CC TITLE OF INVENTION: OF MATTER
CC NUMBER OF SEQUENCES: 23
CC CORRESPONDENCE ADDRESSES:
CC ADDRESS: PATENT ADMINISTRATOR/CREATIVE BIOMOLECULES,
CC ADDRESSEE: INC.
CC STREET: 35 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent in Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/459,346
CC FILING DATE: 19920616
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/029,335
CC FILING DATE: 04-MAR-1993
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/971,091
CC FILING DATE: 03-NOV-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/946,235
CC FILING DATE: 16-SEP-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/938,336
CC FILING DATE: 08-AUG-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/923,780
CC FILING DATE: 31-JUL-1992
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, EDMUND R
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-081CP
CC INFORMATION FOR SEQ ID NO: 6:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC MOLECULE TYPE: linear
CC TOPOLOGY: linear
CC SEQUENCE 402 AA; 44698 MW; 800499 CN;

Query Match 1.8%; Score 125; DB 2; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;

Db 12 GATCAGGGGGLRPP-GC-PORLIG-ARERDVOREILAVLGPR-PPRPAPAS 67
QY 194 GPPVYOLGAATQA-RPPHPSGPRRLGGERAMNSVREAGVPLGLPAGARRGGASR 252
Db 68 RLP 70
QY 253 SLP 255

RESULT 6

LD US-08-278-729A-21 STANDARD; PRT; 402 AA.
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AC xxxxxx
XX
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XX
DE Sequence 21, Application US/08278729A
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CC Sequence 21, Application US/08278729A
CC Patent No. 5650276
CC GENERAL INFORMATION:
CC APPLICANT: SMART, JOHN
CC APPLICANT: OPPERMAN, HERMAN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC APPLICANT: COHEN, CHARLES M.
CC TITLE OF INVENTION: MORPHOGENIC PROTEIN SCREENING METHOD
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC OPERATING SYSTEM: IBM PC compatible
CC SOFTWARE: Patent In Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/278,729A
CC FILING DATE: 20-JUL-1994
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER Esq., EDMUND R.
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-058CPTW
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (508) 435-9001
CC TELEFAX: (508) 435-6951
CC INFORMATION FOR SEQ. ID NO: 21:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 402 AA; 44764 MW; 803627 CN;
SQ
Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9,756-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
Db 12 GLACALGSGGPGRLPP-GC-POERLG-AREBRDVOEILLAVGLPGR-PPRAPPAAS 67
Qy 194 GPLPYQDGAATGA-RPPHAGSPRRRLCCERAMNHSYREAGYPLGLPAPGARRRGSSASR 252
Db 68 RLP 70
Qy 253 SLP 255
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ID US-08-447-570-29 STANDARD; PRT; 402 AA.
XX
AC xxxxxx
XX
XX
XX
DE Sequence 29, Application US/08447570
XX

CC Sequence 29, Application US/08447570
CC Patent No. 5714589
CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMAN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC TITLE OF INVENTION: OSTEOGENIC DEVICES
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC STREET: 53 STATE STREET
CC CITY: BOSTON
CC STATE: MASSACHUSETTS
CC COUNTRY: U.S.A.
CC ZIP: 02109
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC OPERATING SYSTEM: IBM PC compatible
CC SOFTWARE: Patent In Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/447,570
CC FILING DATE: 21-FEB-1992
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 810,560
CC FILING DATE: 20-DEC-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 827,052
CC FILING DATE: 28-JAN-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 660,162
CC FILING DATE: 22-FEB-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,988
CC FILING DATE: 04-DEC-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,849
CC FILING DATE: 04-DEC-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 616,374
CC FILING DATE: 21-NOV-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 600,024
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 599,543
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 579,865
CC FILING DATE: 07-SEP-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 569,920
CC FILING DATE: 20-AUG-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 483,913
CC FILING DATE: 22-FEB-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 422,613
CC FILING DATE: 17-OCT-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 315,342
CC FILING DATE: 23-FEB-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 232,630
CC FILING DATE: 15-AUG-1988
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 179,460
CC FILING DATE: 08-APR-1988
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, EDMUND R.
CC


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CC          TOPOLOGY: linear  
CC      MOLECULE TYPE: protein  
SQ     SEQUENCE   402 AA; 44764 MM; 803627 CN;  
  
Query Match           1.8%; Score 125; DB 1; Length 402;  
Best Local Similarity 39.7%; Pred. No. 9.75e-01;  
Matches    25; Conservative 12; Mismatches 21; Indels 5; Gaps 5.  
  
Db       12 GLALCAGGGGGLRPP-GC-PQRRRLG-AERRDVOREILLAVLGPG-RPRPAPPAAS 67  
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Oy      194 GPLVLQAARQA-QRPPLHSGSPRRRLDCEANMHSYREAGVP LGLPAPAARRRGSSAQR 252  
  
DB       68 RLP 70  
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Oy      253 SLF 255  
  
RESULT      9 STANDARD; PRT; 402 AA.  
XX ID US-08-451-953A-21  
AC xxxxxx  
XT  
DT  
DE Sequence 21, Application US/08451953A  
XX  
XX  
XX  
Sequence 21, Application US/08451953A  
Patent No. 5741641  
GENERAL INFORMATION:  
CC APPLICANT: SMART, JOHN  
CC APPLICANT: OPPERMANN, HERMAN  
CC APPLICANT: OKAYNAK, ENGIN  
CC APPLICANT: KUBERSAMPATH, THANGAVEL  
CC APPLICANT: RUEGER, DAVID C.  
CC APPLICANT: PANZ, ROY H.L.  
CC APPLICANT: COHEN, CHARLES M.  
CC TITLE OF INVENTION: MORPHOGENIC PROTEIN SCREENING METHOD  
CC NUMBER OF SEQUENCES: 33  
CORRESPONDENCE ADDRESS:  
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES  
CC STREET: 45 SOUTH STREET  
CC CITY: HOPKINTON  
CC STATE: MA  
CC COUNTRY: USA  
CC ZIP: 01748  
COMPUTER READABLE FORM:  
CC MEDIUM TYPE: floppy disk  
CC COMPUTER: IBM PC compatible  
CC OPERATING SYSTEM: PC-DOS/MS-DOS  
CC SOFTWARE: PatentIn Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
CC APPLICATION NUMBER: US/08/451,953A  
CC FILING DATE: 26-MAY-1995  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
CC NAME: PITCHER Esq., EDMUND R.  
CC REGISTRATION NUMBER: 27, 829  
REFERENCE/DOCKET NUMBER: CRP-058CN  
TELECOMMUNICATION INFORMATION:  
CC TELEPHONE: (508) 435-9001  
CC TELEFAX: (508) 435-6951  
CC INFORMATION FOR SEQ ID NO: 21:  
SEQUENCE CHARACTERISTICS:  
CC LENGTH: 402 amino acids  
CC TYPE: amino acid  
CC TOPOLOGY: linear  
MOLECULE TYPE: protein  
CC SEQUENCE 402 AA; 44764 MM; 803627 CN;  
Query Match           1.8%; Score 125; DB 1; Length 402;  
Best Local Similarity 39.7%; Pred. No. 9.75e-01;  
Matches    25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
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Db 12 GLALCALGGGPGILRPP-CC-PORRLG-ARRRDVORELLAVLGGR-PRRAPPAS 67
QY 194 GPPYLQIGATQA-RPPHAGRRRLGGERAMNHSVREAGVPLGIPAGARRRGSASR 252
Db 68 RLP 70
QY 253 SLP 255

RESULT 10
ID US-08-643-763A-21 STANDARD; PRT; 402 AA.
AC xxxxxx
XX

Sequence 21, Application US/08643763A
Patent No. 5733878
GENERAL INFORMATION:

APPLICANT: KUBERASAMPATH, THANGAVEL
APPLICANT: RUEGER, DAVID C.
APPLICANT: OPPERMAN, HERMAN
APPLICANT: COHEN, CHARLES M.
APPLICANT: PANG, ROY H.L.
TITLE OF INVENTION: MORPHOGENIC-INDUCED PERIODONTAL TISSUE
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESSES:
ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
STREET: 45 SOUTH STREET
CITY: HOPKINTON
STATE: MA
COUNTRY: USA
ZIP: 01748

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/643,763A

FILING DATE: 06-MAY-1996

CLASSIFICATION: 514

ATTORNEY/AGENT INFORMATION:

NAME: FENTON ESQ., GILLIAN M.

REGISTRATION NUMBER: 36,508

REFERENCE/DOCKET NUMBER: CRP-067CN

TELECOMMUNICATION INFORMATION:

TELEPHONE: (617) 248-7560

TELEFAX: (617) 248-7100

INFORMATION FOR SEQ ID NO: 21:

SEQUENCE CHARACTERISTICS:

LENGTH: 402 amino acids

TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE 402 AA: 44764 MW: 803627 CN;

Query Match 1.8%; Score 125; DB 1; Length 402;

Best Local Similarity 39.7%; Pred. No. 9.75e-01;

Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;

Db 12 GLALCALGGGPGILRPP-CC-PORRLG-ARRRDVORELLAVLGGR-PRRAPPAS 67
QY 194 GPPYLQIGATQA-RPPHAGRRRLGGERAMNHSVREAGVPLGIPAGARRRGSASR 252

Db 68 RLP 70
QY 253 SLP 255

RESULT 11
ID US-08-479-666-8 STANDARD; PRT; 402 AA.
AC xxxxxx
XX

Sequence 8, Application US/08479666

Patent No. 5652337

GENERAL INFORMATION:

APPLICANT: OPPERMAN, HERMAN

APPLICANT: OZKAYNAK, ENGİN

APPLICANT: KUBERASAMPATH, THANGAVEL

APPLICANT: RUEGER, DAVID C.

APPLICANT: PANG, ROY H.L.

APPLICANT: COHEN, CHARLES M.

TITLE OF INVENTION: OP3-INDUCED MORPHOGENESIS

NUMBER OF SEQUENCES: 13

CORRESPONDENCE ADDRESSES:

ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES

STREET: 45 SOUTH STREET

CITY: HOPKINTON

STATE: MA

COUNTRY: USA

ZIP: 01748

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/479,666

FILING DATE: 07-JUN-1995

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: FENTON ESQ., GILLIAN M.

REGISTRATION NUMBER: 36,508

REFERENCE/DOCKET NUMBER: CRP-076DV

TELECOMMUNICATION INFORMATION:

TELEPHONE: (508) 435-9001

TELEFAX: (508) 435-6951

INFORMATION FOR SEQ ID NO: 8:

SEQUENCE CHARACTERISTICS:

LENGTH: 402 amino acids

TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE 402 AA: 44698 MW: 800499 CN;

Query Match 1.8%; Score 125; DB 1; Length 402;

Best Local Similarity 39.7%; Pred. No. 9.75e-01;

Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;

Db 12 GLALCALGGGPGILRPP-CC-PORRLG-ARRRDVORELLAVLGGR-PRRAPPAS 67
QY 194 GPPYLQIGATQA-RPPHAGRRRLGGERAMNHSVREAGVPLGIPAGARRRGSASR 252

Db 68 RLP 70
QY 253 SLP 255

RESULT 12
ID US-08-147-023-29 STANDARD; PRT; 402 AA.
AC xxxxxx
XX

Sequence 29, Application US/08147023

Sequence 29, Application US/08147023
Patent No. 5468845
GENERAL INFORMATION:
APPLICANT: OPPERMAN, HERMANN
APPLICANT: OZKAYNAK, ENGIN
APPLICANT: KUBERASAMPATH, THANGAVEL
APPLICANT: RUEGER, DAVID C.
APPLICANT: PANG, ROY H.L.
TITLE OF INVENTION: OSTEOGENIC DEVICES
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: TESTA, HURWITZ & THIBEAULT
STREET: 53 STATE STREET
CITY: BOSTON
STATE: MASSACHUSETTS
COUNTRY: U.S.A.
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/147,023
FILING DATE: 21-FEB-1992
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 810,560
FILING DATE: 20-DEC-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 827,052
FILING DATE: 28-JAN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 660,162
FILING DATE: 22-FEB-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 621,988
FILING DATE: 04-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 621,849
FILING DATE: 04-DEC-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 616,374
FILING DATE: 21-NOV-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 600,024
FILING DATE: 18-OCT-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 599,543
FILING DATE: 18-OCT-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 579,865
FILING DATE: 07-SEP-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 569,920
FILING DATE: 20-AUG-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 483,913
FILING DATE: 22-FEB-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 422,613
FILING DATE: 17-OCT-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 315,342
FILING DATE: 23-FEB-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 232,630
FILING DATE: 15-AUG-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 179,460
FILING DATE: 08-APR-1988
ATTORNEY/AGENT INFORMATION:
NAME: PITCHER, EDMUND R.

REGISTRATION NUMBER: 27,829
REFERENCE/DOCKET NUMBER: CRP-001CP6
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/248-7000
TELEFAX: 617/248-7100
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
LENGTH: 402 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE 402 AA; 44698 MW; 800499 CN;
Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;
DB 12 GLALGAGGGGRLRPP-IGC-PORRLG-ARERRDVOEILAVGLPGR-PPRPAPPAAS 67
QY 194 GPPYLQANATOA-RPPHASGFRRLGECERAMNHSVREAGVPLGLPAGARRRGGSASR 252
DB 68 RLP 70
QY 253 SLP 255
RESULT 13
ID US-07-841-646-29 STANDARD: PRT; 402 AA.
AC xxxxxx
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XX
DE Sequence 29, Application US/07841646
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CC Sequence 29, Application US/07841646
CC Patent No. 5266683
CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC TITLE OF INVENTION: OSTEOGENIC DEVICES
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESSES:
CC ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC STREET: 53 STATE STREET
CC CITY: BOSTON
CC STATE: MASSACHUSETTS
CC COUNTRY: U.S.A.
CC ZIP: 02109
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/07/841,646
CC FILING DATE: 19920221
CC CLASSIFICATION: 530
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 810,560
CC FILING DATE: 20-DEC-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 827,052
CC FILING DATE: 28-JAN-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 660,162
CC FILING DATE: 22-FEB-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,988
CC FILING DATE: 04-DEC-1990

CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,849
CC FILING DATE: 04-DEC-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 616,374
CC FILING DATE: 21-NOV-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 600,024
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 599,543
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 579,865
CC FILING DATE: 07-SEP-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 569,920
CC FILING DATE: 20-AUG-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 483,913
CC FILING DATE: 22-FEB-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 422,613
CC FILING DATE: 17-OCT-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 315,342
CC FILING DATE: 23-FEB-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 232,630
CC FILING DATE: 15-AUG-1988
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 179,460
CC FILING DATE: 08-APR-1988
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, EDMUND R.
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-001CP6
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 617/248-7000
CC TELEFAX: 617/248-7100
CC INFORMATION FOR SEQ ID NO: 29:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: AMINO ACID
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 402 AA: 44698 MW: 800499 CN;

Query Match 1.8%; Score 125; DB 1; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;

Db 12 GLALCALGGGPGRLRPP-CC-PQRILG-ARERDVQREILAVLGLGR-PRPRAPPAAS 67
QY 194 GPPLYOLGATQA-RPPPHASGPRRLIGCERAMNHSVREAGVPLGLPAPGARRRRGSASR 252
Db 68 RLP 70
QY 253 SLP 255

RESULT 14
ID PCT-US93-10520-8 STANDARD; PRT; 402 AA.
XX xxxxxx
AC
DT
XX
XX
DE Sequence 8, Application PC/TUS9310520
CC Sequence 8, Application PC/TUS9310520
CC GENERAL INFORMATION:
CC APPLICANT:

CC TITLE OF INVENTION: OP3-INDUCED MORPHOGENESIS
CC NUMBER OF SEQUENCES: 13
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: CREATIVE BIOMOLECULES, INC.
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA USA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US93/10520
CC FILING DATE:
CC CLASSIFICATION:
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/667,274
CC FILING DATE: 11-MAR-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/752,764
CC FILING DATE: 30-AUG-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/753,059
CC FILING DATE: 30-AUG-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/752,857
CC FILING DATE: 30-AUG-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/923,780
CC FILING DATE: 31-JUL-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/922,813
CC FILING DATE: 31-JUL-1992
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, ESO, EDMUND R.
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-076PC
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (508)435-9001
CC INFORMATION FOR SEQ ID NO: 8:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 402 AA: 44698 MW: 800499 CN;

Query Match 1.8%; Score 125; DB 3; Length 402;
Best Local Similarity 39.7%; Pred. No. 9.75e-01;
Matches 25; Conservative 12; Mismatches 21; Indels 5; Gaps 5;

Db 12 GLALCALGGGPGRLRPP-CC-PQRILG-ARERDVQREILAVLGLGR-PRPRAPPAAS 67
QY 194 GPPLYOLGATQA-RPPPHASGPRRLIGCERAMNHSVREAGVPLGLPAPGARRRRGSASR 252
Db 68 RLP 70
QY 253 SLP 255

RESULT 15
ID PCT-US93-07190-21 STANDARD; PRT; 402 AA.
XX xxxxxx
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XX
XX
DE Sequence 21, Application PC/TUS9307190
CC Sequence 21, Application PC/TUS9307190

GENERAL INFORMATION:

CC GENERAL INFORMATION:
CC APPLICANT:
CC

CC TITLE OF INVENTION: MOREPHOGEN-ENRICHED DIETARY COMPOSITION
CC NUMBER OF SEQUENCES: 33
CC

CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: CREATIVE BIOMOLECULES, INC

CC STREET: 35 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: NJ

CC STATE: MA
CC COUNTRY: USA
CC 01740

CC ZIP: 01/48
CC COMPUTER READABLE FORM:

CC MEDIUM TYPE: floppy disk
CC COMPUTER: IBM PC compatible
CC ADDRESSING: sequential

CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Vers:
CC SOURCE INFORMATION:

CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US93/07190
CC

CC ATTORNEY/AGENT INFORMATION:
CC NAME: KELLEY, ROBIN D.
CC PROSECUTION NUMBER: 34 037

REGISTRATION NUMBER: 34,63/
REFERENCE/DOCKET NUMBER: CRP-071

TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/248-7000
FAX: 617/248-7100

TELEFAX: 617/248-7100
 INFORMATION FOR SEQ ID NO: 21:
 SEQUENCE CHARACTERISTICS:

CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 402 amino acids
CC EVNT: 0141 2014

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CC      TYPE: amino acid
CC      TOPOLOGY: linear
CC      WORKING AREA:

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CC MOLECULE TYPE: protein
SQ SEQUENCE 402 AA; 44698 MW; 800499 CN;

Query Match	1.88;	Score 125;	DB 3
Post road civilisation	30.74	50.3	0.75

Best Local Similarity 39.7%; Pred. NO. 9./35e-1
Matches 25; Conservative 12; Mismatches

Db 12 GLATCALGGGPGLRPP-GC-PQRLG-ARERDVQRE

QY 194 GPPYQLGATQA-RPPPHASGPRRLGCERAWNH5VREE

Db 68 RLP 70

QY 253 SLP 255

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search completed: Tue Jun 2/ 14:37:39 2000
Job time : 45 secs.

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MUSEUM
(TM)

Release 3.1A John F. Collins, Biocomputing Research Unit.
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Mparch_n n.a. - n.a. database search, using Smith-Waterman algorithm

Run on: Tue Jun 27 18:20:25 2000; MasPar time 296.26 Seconds
1202.319 Million cell updates/sec

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Title: >US-08-951-733-19
Description: (1-3798) from US08951733.seq
Perfect Score: 3798
N.A. Sequence: 1 CCACGGCGTCCGGCAGCGCT.....GGANTACTCATCCCTGAT 3798
Comp: GGTGCGCAGCGCCGTCGCGA.....CCTTATCAGTAGGGGACTA

Scoring table: TABLE default
Gap 6

Nmatch STD : Dbase 0; Query 0

Searched: 176463 segs, 46893068 bases x 2

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database: n-issued
1:5A_COMB 2:5B_COMB 3:5C_COMB 4:5D_COMB 5:PCT9_COMB
6:backfiles1

Statistics: Mean 9.566; Variance 5.752; scale 1.663

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	67	1.8	7218	2	US-08-232-Sequence 14, Applicati	5.36e-25
2	52	1.4	965	3	US-08-388-Sequence 22, Applicati	8.73e-16
3	49	1.3	7218	2	US-08-232-Sequence 14, Applicati	5.35e-14
4	42	1.1	215	1	US-08-238-Sequence 5, Applicatio	6.33e-09
5	40	1.1	965	3	US-08-388-Sequence 22, Applicati	8.63e-09
6	37	1.0	215	1	US-08-238-Sequence 5, Applicatio	6.35e-01
7	25	0.7	68	1	US-07-977-Sequence 243, Applicat	6.35e-01
8	25	0.7	69	1	US-08-471-Sequence 142, Applicat	6.35e-01
9	26	0.7	74	4	US-08-488-Sequence 94, Applicati	2.12e-01
10	26	0.7	74	4	PCT-US95-1 Sequence 100, Applicat	6.35e-01
11	25	0.7	74	4	US-08-488-Sequence 100, Applicat	6.35e-01
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15	26	0.7	74	4	US-08-488-Sequence 100, Applicat	2.12e-01
16	26	0.7	74	4	US-08-488-Sequence 94, Applicati	2.12e-01
17	25	0.7	75	5	PCT-US95-1 Sequence 99, Applicati	6.35e-01
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19	25	0.7	75	4	US-08-488-Sequence 99, Applicati	6.35e-01

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22	25	0.7 <td>81</td> <td>4</td> <td>US-08-488-Sequence 98, Applicati<td>6.35e-01</td></td>	81	4	US-08-488-Sequence 98, Applicati <td>6.35e-01</td>	6.35e-01	
23	25	0.7 <td>81</td> <td>5</td> <td>PCT-US95-1 Sequence 98, Applicati<td>6.35e-01</td></td>	81	5	PCT-US95-1 Sequence 98, Applicati <td>6.35e-01</td>	6.35e-01	
24	26	0.7 <td>81</td> <td>5</td> <td>PCT-US95-1 Sequence 98, Applicati<td>2.12e-01</td></td>	81	5	PCT-US95-1 Sequence 98, Applicati <td>2.12e-01</td>	2.12e-01	
25	26	0.7 <td>81</td> <td>4</td> <td>US-08-488-Sequence 92, Applicati<td>2.12e-01</td></td>	81	4	US-08-488-Sequence 92, Applicati <td>2.12e-01</td>	2.12e-01	
26	26	0.7 <td>81</td> <td>5</td> <td>PCT-US95-1 Sequence 92, Applicati<td>2.12e-01</td></td>	81	5	PCT-US95-1 Sequence 92, Applicati <td>2.12e-01</td>	2.12e-01	
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28	26	0.7 <td>82</td> <td>4</td> <td>US-08-488-Sequence 97, Applicati<td>2.12e-01</td></td>	82	4	US-08-488-Sequence 97, Applicati <td>2.12e-01</td>	2.12e-01	
29	26	0.7 <td>82</td> <td>5</td> <td>PCT-US95-1 Sequence 97, Applicati<td>2.12e-01</td></td>	82	5	PCT-US95-1 Sequence 97, Applicati <td>2.12e-01</td>	2.12e-01	
30	26	0.7 <td>82</td> <td>5</td> <td>PCT-US95-1 Sequence 97, Applicati<td>2.12e-01</td></td>	82	5	PCT-US95-1 Sequence 97, Applicati <td>2.12e-01</td>	2.12e-01	
31	26	0.7 <td>82</td> <td>4</td> <td>US-08-488-Sequence 97, Applicati<td>6.35e-01</td></td>	82	4	US-08-488-Sequence 97, Applicati <td>6.35e-01</td>	6.35e-01	
32	25	0.7 <td>105</td> <td>2</td> <td>US-07-855-Sequence 13, Applicati<td>6.35e-01</td></td>	105	2	US-07-855-Sequence 13, Applicati <td>6.35e-01</td>	6.35e-01	
33	25	0.7 <td>242</td> <td>2</td> <td>US-08-273-Sequence 1, Applicatio<td>6.35e-01</td></td>	242	2	US-08-273-Sequence 1, Applicatio <td>6.35e-01</td>	6.35e-01	
34	25	0.7 <td>1004</td> <td>3</td> <td>PCT-US95-0 Sequence 7, Applicatio<td>6.35e-01</td></td>	1004	3	PCT-US95-0 Sequence 7, Applicatio <td>6.35e-01</td>	6.35e-01	
35	25	0.7 <td>1004</td> <td>3</td> <td>US-08-465-Sequence 8, Applicatio<td>6.35e-01</td></td>	1004	3	US-08-465-Sequence 8, Applicatio <td>6.35e-01</td>	6.35e-01	
36	25	0.7 <td>1288</td> <td>3</td> <td>US-08-440-Sequence 9, Applicatio<td>6.35e-01</td></td>	1288	3	US-08-440-Sequence 9, Applicatio <td>6.35e-01</td>	6.35e-01	
37	25	0.7 <td>1386</td> <td>5</td> <td>PCT-US95-0 Sequence 2, Applicatio<td>6.35e-01</td></td>	1386	5	PCT-US95-0 Sequence 2, Applicatio <td>6.35e-01</td>	6.35e-01	
38	25	0.7 <td>1386</td> <td>3</td> <td>US-08-465-Sequence 3, Applicatio<td>6.35e-01</td></td>	1386	3	US-08-465-Sequence 3, Applicatio <td>6.35e-01</td>	6.35e-01	
39	25	0.7 <td>1611</td> <td>5</td> <td>PCT-US93-0 Sequence 3, Applicatio<td>6.35e-01</td></td>	1611	5	PCT-US93-0 Sequence 3, Applicatio <td>6.35e-01</td>	6.35e-01	
40	25	0.7 <td>7175</td> <td>4</td> <td>US-08-223-Sequence 8, Applicatio<td>6.35e-01</td></td>	7175	4	US-08-223-Sequence 8, Applicatio <td>6.35e-01</td>	6.35e-01	
41	25	0.7 <td>7175</td> <td>4</td> <td>US-08-193-Sequence 8, Applicatio<td>6.35e-01</td></td>	7175	4	US-08-193-Sequence 8, Applicatio <td>6.35e-01</td>	6.35e-01	
42	25	0.7 <td>7175</td> <td>3</td> <td>US-08-455-Sequence 8, Applicatio<td>6.35e-01</td></td>	7175	3	US-08-455-Sequence 8, Applicatio <td>6.35e-01</td>	6.35e-01	
43	25	0.7 <td>7362</td> <td>3</td> <td>US-08-455-Sequence 7, Applicatio<td>6.35e-01</td></td>	7362	3	US-08-455-Sequence 7, Applicatio <td>6.35e-01</td>	6.35e-01	
44	25	0.7 <td>7362</td> <td>4</td> <td>US-08-193-Sequence 7, Applicatio<td>6.35e-01</td></td>	7362	4	US-08-193-Sequence 7, Applicatio <td>6.35e-01</td>	6.35e-01	
45	25	0.7 <td>7362</td> <td>4</td> <td>US-08-149-Sequence 7, Applicatio<td>6.35e-01</td></td>	7362	4	US-08-149-Sequence 7, Applicatio <td>6.35e-01</td>	6.35e-01	

ALIGNMENTS

RESULT 1
ID US-08-232-463-14 STANDARD; DNA; UNC; 7218 BP.
AC xxxxxx
DE Sequence 14, Application US/08232463
CC Sequence 14, Application US/08232463
CC Patent No. 5670367
CC GENERAL INFORMATION:
CC APPLICANT: DORNER, F.
CC APPLICANT: SCHEIFLINGER, F.
CC APPLICANT: FALKNER, F. G.
CC TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
CC NUMBER OF SEQUENCES: 52
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Foley & Lardner
CC STREET: 1800 Diagonal Road, Suite 500
CC CITY: Alexandria
CC STATE: VA
CC COUNTRY: USA
CC ZIP: 22313-0299
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/232,463
CC FILING DATE:
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US/07/935,313
CC FILING DATE:
CC APPLICATION NUMBER: EP 91 114 300.6
CC FILING DATE: 26-AUG-1991
CC ATTORNEY/AGENT INFORMATION:
CC NAME: BENT, Stephen A.
CC REGISTRATION NUMBER: 29,768
CC REFERENCE/DOCKET NUMBER: 30472/114 IMMU
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (703)836-9300
CC TELEFAX: (703)683-4109
CC TELEX: 899149
CC INFORMATION FOR SEQ ID NO: 14:


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CC TELECOMMUNICATION INFORMATION:  
CC TELEPHONE: (703)836-9300  
CC TELEFAX: (703)683-4109  
CC TELEX: 899149  
CC INFORMATION FOR SEQ ID NO: 14:  
CC SEQUENCE CHARACTERISTICS:  
CC LENGTH: 7218 base pairs  
CC TYPE: nucleic acid  
CC STRANDEDNESS: single  
CC TOPOLOGY: linear  
CC IMMEDIATE SOURCE:  
CC CLONE: PTZgpt-F15  
CC SEQUENCE 7218 BP; 1944 A; 1491 C; 1486 G; 1929 T; 368 OTHER.  
  
Cc Query Match 1.3%; Score 49; DB 2; Length 7218;  
Cc Best Local Similarity 2.0%; Pred. No. 5,35e-14;  
Cc Matches 6; Conservative 165; Mismatches 122; Indels 0; Gaps 0;  
  
Db 1150 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1209  
Cc : : : : : : : : : : : : : : : : : : : : :  
Cp 2080 CCGGCCCGGCTGTGATGAGCACGCCTGAACAGTGCTCACCTGAGTGAAGCTC 2021  
Cc : : : : : : : : : : : : : : : : : : : : :  
Db 1210 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1269  
Cc : : : : : : : : : : : : : : : : : : : : :  
Cp 2020 GCCCTCTTTCTGCGGAGACGTTCTGGCTCCACGAGTAGTCATGCTCAACTCG 1961  
Cc : : : : : : : : : : : : : : : : : : : : :  
Cc 1270 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1329  
Cc : : : : : : : : : : : : : : : : : : : : :  
Cp 1960 CCGGACCCGCTAGCGTTGGGATGAACGCGAGCTCGACGTCAGACGAGGCGGCTGCG 1901  
Cc : : : : : : : : : : : : : : : : : : : : :  
Db 1330 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1389  
Cc : : : : : : : : : : : : : : : : : : : : :  
Cp 1900 TTCCGATGCTCTGACCTCTGCTCCGACAGCTCCGCGAGTGCACCCTCTCAAGTG 1841  
Cc : : : : : : : : : : : : : : : : : : : : :  
Db 1390 YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY 1442  
Cc : : : : : : : : : : : : : : : : : : : : :  
Cp 1840 CTGTCTGATTCCAATGCTTGGCACTTGCTCCAGACACTCTTCCGGTAGAAAA 1788  
Cc : : : : : : : : : : : : : : : : : : : : :  
  
RESULT 4  
ID US-08-238-163-5 STANDARD; DNA; UNC; 215 BP.  
AC xxxxxx  
DT  
De Sequence 5, Application US/08238163  
Cc Sequence 5, Application US/08238163  
Cc Patent No. 5569830  
Cc GENERAL INFORMATION:  
Cc APPLICANT: BENNETT, Alan  
Cc APPLICANT: LABAVITCH, John M.  
Cc APPLICANT: POWELL, Ann  
Cc APPLICANT: STOTZ, Henrik  
Cc TITLE OF INVENTION: PLANT INHIBITORS OF FUNGAL  
Cc TITLE OF INVENTION: POLIGALACTURONASES AND THEIR USE TO CONTROL FUNGAL DISEASE  
Cc NUMBER OF SEQUENCES: 24  
Cc CORRESPONDENCE ADDRESS:  
Cc ADDRESSSEE: Townsend and Townsend Kourlie and Crew  
Cc STREET: Steuart Street Tower, One Market Plaza  
Cc CITY: San Francisco  
Cc STATE: California  
Cc COUNTRY: US  
Cc ZIP: 94105-1493  
Cc COMPUTER READABLE FORM:  
Cc MEDIUM TYPE: floppy disk  
Cc COMPUTER: IBM PC compatible  
Cc OPERATING SYSTEM: PC-DOS/MS-DOS  
Cc SOFTWARE: PatentIn Release #1.0, Version #1.25  
Cc CURRENT APPLICATION DATA:  
Cc APPLICATION NUMBER: US/08/238,163  
Cc FILING DATE: 03-MAY-1994  
Cc CLASSIFICATION: 800  
Cc ATTORNEY/AGENT INFORMATION:  
Cc NAME: Bastian, Kevin L.  
Cc REGISTRATION NUMBER: 34,774  
Cc
```

```
CC REFERENCE/DOCKET NUMBER: 2307E-540
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 543-9600
CC TELEX: (415) 543-5043
CC INFORMATION FOR SEQ ID NO: 5:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 215 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: unknown
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: misc-feature
CC LOCATION: 1..215
CC OTHER INFORMATION: /standard.name= "Deduced amino acid
CC OTHER INFORMATION: sequence of PCIP from bean."
CC SEQUENCE 215 BP; 15 A; 8 C; 25 G; 26 T; 14 I OTHER.
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Query Match 1.1%; Score 42; DB 1; Length 215;
Best Local Similarity 15.5%; Pred.No. 6.33e-10;

Matches 32; Conservative 82; Mismatches 90; Indels 2; Gaps 2

Dd 7 SSSSVSTASCNDKAKADGTTSSWTDCCNRTWGVCDDITTYRVNNDSGHNKYSSANT 66
Qy 2641 :GGCGAGCAGCGGTGCCTCCGCCGTCGTATGATGAATTCTTGTGTGCACACTCACCTCAAC :
 :||::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|:
Db 67 NYGNGNVAAATHYYTHHNVSAGASKTVTDSYNASGSSTSNGTGIDNR-SGADSYSGST 125
Qy 2701 CCACGGCAAACCTTCCTCCACAGACCCTGTCTCGAAGTGTCCTTAGATGCTGTGCTGT 2760
Db 126 AMTSRFRIGTKANNNAVDRNMGDASVSGD-KNTKRHKANSADGRFVSKSNMDRNRRYTGT 184
Qy 2761 GAAC TTGGGGAAGAACAAGTCGTGAAC T TCCTGTAGAGAACAGACAGGCCCTGGTGACACGC 2820

Db 185 TKSNVSNNGGKNRKDVSYIANMFC 210
Qy 2821 TTTTGTTCAGATGCCGCCACGCCC 2846

RESULT 5
ID US-08-388-672A-22 STANDARD; DNA; UNC; 965 BP.
AC xxxxxx

DE Sequence 22, Application US/0838867ZA
CC Sequence 22, Application US/0838867ZA
CC Patent No. 5793961
CC GENERAL INFORMATION:

CC APPLICANT: Wallace, T. Paul
CC APPLICANT: Harris, William J.
CC APPLICANT: Carr, Frank J.
CC APPLICANT: Old, Lloyd J.
CC APPLICANT: Welt, Sydney
CC TITLE OF INVENTION: Kitamura, Kunio
CC TITLE OF INVENTION: Recombinant Human Anti-Lewis B
CC TITLE OF INVENTION: Antibodies
CC NUMBER OF SEQUENCES: 25
CC CORRESPONDENCE ADDRESSES:
CC ADDRESSEE: Felte and Lynch
CC STREET: 805 Third Avenue
CC CITY: New York
CC STATE: New York
CC COUNTRY: U.S.A.
CC ZIP: 10022

COMPUTER READABLE FORM:
CC MEDIM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/388,672A
CC FILING DATE: 14-FEB-1995
CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:

CC		SEQUENCE CHARACTERISTICS:	
CC		LENGTH: 68	
CC		TYPE: NUCLEIC ACID	
CC		STRANDEDNESS: SINGLE	
CC		TOPOLOGY: LINEAR	
CC		ANTI-SENSE: NO	
SQ	SEQUENCE 68 BP; 7 A; 38 C; 17 G; 6 T; 0 OTHER.		
Db		Query Match	0.7%; Score 25; DB 1; Length 68;
		Best Local Similarity	75.5%; Pred. No. 6.35e-01;
OY	Matches 37; Conservative	0; Mismatches 12; Indels	0; Gaps 0;
Db	11 CGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAGGACGCCCTTCTGTAGG 59		
OY	234 CGGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAGGTGTCTGTGGAAG 302		
RESULT	8		
ID	US-08-471-052A-142 STANDARD; DNA; UNC; 69 BP.		
AC	xxxxxx		
D7			
DE	Sequence 142, Application US/08471052A		
CC	Sequence 142, Application US/08471052A		
CC	Patent No. 5625033		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Kay, B. K.		
CC	TITLE OF INVENTION: Fowles, D. M.		
CC	NUMBER OF SEQUENCES: 166		
CC	CORRESPONDENCE ADDRESS:		
CC	ADDRESSEE: Pennie & Edmonds		
CC	STREET: 1155 Avenue of the Americas		
CC	CITY: New York		
CC	STATE: New York		
CC	COUNTRY: U.S.A.		
CC	ZIP: 10036-2711		
CC	COMPUTER READABLE FORM:		
CC	MEDIUM TYPE: Floppy disk		
CC	COMPUTER: IBM PC compatible		
CC	OPERATING SYSTEM: PC-DOS/MS-DOS		
CC	SOFTWARE: Patentin Release #1.0, Version #1.25		
CC	CURRENT APPLICATION DATA:		
CC	APPLICATION NUMBER: US/08/471,052A		
CC	FILING DATE: 06-JUNE-1995		
CC	CLASSIFICATION: 530		
CC	ATTORNEY/AGENT INFORMATION:		
CC	NAME: Mistock, S. Leslie		
CC	REGISTRATION NUMBER: 18,872		
CC	REFERENCE/DOCKET NUMBER: 1101-179		
CC	TELECOMMUNICATION INFORMATION:		
CC	TELEPHONE: 212 790-9090		
CC	TELEFAX: 212 869-8864/9741		
CC	TELEX: 66141 PENNIE		
CC	INFORMATION FOR SEQ ID NO: 142:		
CC	SEQUENCE CHARACTERISTICS:		
CC	LENGTH: 69 bases		
CC	TYPE: nucleic acid		
CC	STRANDEDNESS: single		
CC	TOPOLOGY: unknown		
CC	MOLECULE TYPE: DNA		
SQ	SEQUENCE 69 BP; 2 A; 4 C; 6 G; 2 T; 55 OTHER.		
	Query Match	0.7%; Score 25; DB 1; Length 69;	
	Best Local Similarity	11.3%; Pred. No. 6.35e-01;	
	Matches 7; Conservative	18; Mismatches 37; Indels	0; Gaps 0;
Db	7 AGNNBNNBNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBNNBCCA 66		
OY	1433 AGCAACCCCCGCGAGGTGTACGGCTTGCTGC GGCGCGCCTGCGCGGCTGTCGCCA 1492		
D7			
DE	Sequence 142, Application US/08471052A		
CC	Sequence 142, Application US/08471052A		
CC	Patent No. 5625033		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Kay, B. K.		
CC	TITLE OF INVENTION: Fowles, D. M.		
CC	NUMBER OF SEQUENCES: 166		
CC	CORRESPONDENCE ADDRESS:		
CC	ADDRESSEE: Pennie & Edmonds		
CC	STREET: 1155 Avenue of the Americas		
CC	CITY: New York		
CC	STATE: New York		
CC	COUNTRY: U.S.A.		
CC	ZIP: 10036-2711		
CC	COMPUTER READABLE FORM:		
CC	MEDIUM TYPE: Floppy disk		
CC	COMPUTER: IBM PC compatible		
CC	OPERATING SYSTEM: PC-DOS/MS-DOS		
CC	SOFTWARE: Patentin Release #1.0, Version #1.25		
CC	CURRENT APPLICATION DATA:		
CC	APPLICATION NUMBER: US/08/471,052A		
CC	FILING DATE: 06-JUNE-1995		
CC	CLASSIFICATION: 530		
CC	ATTORNEY/AGENT INFORMATION:		
CC	NAME: Mistock, S. Leslie		
CC	REGISTRATION NUMBER: 18,872		
CC	REFERENCE/DOCKET NUMBER: 1101-179		
CC	TELECOMMUNICATION INFORMATION:		
CC	TELEPHONE: 212 790-9090		
CC	TELEFAX: 212 869-8864/9741		
CC	TELEX: 66141 PENNIE		
CC	INFORMATION FOR SEQ ID NO: 142:		
CC	SEQUENCE CHARACTERISTICS:		
CC	LENGTH: 69 bases		
CC	TYPE: nucleic acid		
CC	STRANDEDNESS: single		
CC	TOPOLOGY: unknown		
CC	MOLECULE TYPE: DNA		
SQ	SEQUENCE 69 BP; 2 A; 4 C; 6 G; 2 T; 55 OTHER.		

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RESULT      .9
DT          US -08-488-161-94 STANDARD; DNA; UNC; 74 BP.
AC          xxxxxx
DE          Sequence 94, Application US/08488161
CC          Sequence 94, Application US/08488161
CC          Patent No. 5885577
CC          GENERAL INFORMATION:
CC            APPLICANT: Alvarez, Vernon L.
CC            TITLE OF INVENTION: Antigen Binding Peptides (AbIdes) From
CC              TITLE OF INVENTION: Peptide Libraries
CC            NUMBER OF SEQUENCES: 103
CC            CORRESPONDENCE ADDRESS:
CC              ADDRESSEE: Pennie & Edmonds
CC                STREET: 1155 Avenue of the Americas
CC                  CITY: New York
CC                    STATE: New York
CC                      COUNTRY: USA
CC                        ZIP: 10036
CC              COMPUTER READABLE FORM:
CC                MEDIUM TYPE: Floppy disk
CC                COMPUTER: IBM PC compatible
CC                OPERATING SYSTEM: PC-DOS/MS-DOS
CC                SOFTWARE: Patentin Release #1.0, Version #1.30
CC                CURRENT APPLICATION DATA:
CC                  APPLICATION NUMBER: US/08/488,161
CC                  FILING DATE: 07-JUN-1995
CC                  CLASSIFICATION: 436
CC                ATTORNEY/AGENT INFORMATION:
CC                  NAME: Mistock, S. Leslie
CC                  REGISTRATION NUMBER: 18,872
CC                  REFERENCE/DOCKET NUMBER: 1101-176
CC                  TELECOMMUNICATION INFORMATION:
CC                    TELEPHONE: (212) 790-9090
CC                    TELEFAX: (212) 869-9741/8864
CC                    TEXT: 66141 PENNIE
CC          INFORMATION FOR SEQ ID NO: 94:
CC            SEQUENCE CHARACTERISTICS:
CC              LENGTH: 74 base pairs
CC              TYPE: nucleic acid
CC              STRANDEDNESS: single
CC              TOPOLOGY: linear
CC            MOLECULE TYPE: DNA
SQ          SEQUENCE 74 BP; 3 A; 4 C; 3 G; 1 T; 63 OTHER.

Query Match           0.7%; Score 26; DB 4; Length 74;
Best Local Similarity 11.4%; Pred. No. 2.1e-01;
Matches      8; Conservativity 19; Mismatches 43; Indels 0; Gaps 0.

Db    3 GAGNNBNNBNBNNBNBNNBNBNNBNBNNBNBNNBNBNNBNBNNBNBNNBN 62
      ||| : : : : : : : : : : : : : : : : : : : : : : : :
QY   2449 GAGCTCCTCCTCGAATGAGCCAGACAGTGGCTTTTGAGAGTCCTCTACGCTCA 2508
      Matches      8; Conservativity 19; Mismatches 43; Indels 0; Gaps 0.

Db    63 BNNBNACC GC 72
      : : : |||||
QY   2509 CCACCACGCC 2518

RESULT      10
ID         PCT-US95-11934-94 STANDARD; DNA; UNC; 74 BP.
AC         xxxxxx
DT
DE         Sequence 94, Application PC/TUS9511934
CC         Sequence 94, Application PC/TUS9511934
CC         GENERAL INFORMATION:
CC           APPLICANT: CytoGen Corporation
CC           TITLE OF INVENTION: Antigen Binding Peptides (AbIdes) From
CC             TITLE OF INVENTION: Peptide Libraries
CC           NUMBER OF SEQUENCES: 103
CC           CORRESPONDENCE ADDRESS:
CC             ADDRESSEE: Pennie & Edmonds
```


Query Match 0.7%; Score 25; DB 4; Length 74;
Best Local Similarity 7.7%; Pred. No. 6.35e-01;
Matches 5; Conservative 20; Mismatches 40; Indels 0; Gaps 0;

DB 6 VNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 65
QY 946 CCACGCCGACCGATCGTGGCGGACGACGACGCGGCCCGCCATCCACATCGGGGCC 1005
DB 66 ACCAC 70
QY 1006 ACCAC 1010

RESULT 13
ID PCT-US95-11934-100 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx

DE Sequence 100, Application PC/TUS9511934
CC Sequence 100, Application PC/TUS9511934
CC GENERAL INFORMATION:
CC APPLICANT: Cytogen Corporation
CC TITLE OF INVENTION: Antigen Binding Peptides (Ablides) From
CC TITLE OF INVENTION: Peptide Libraries
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036

CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US95/11934
CC FILING DATE: 20-SEP-1995
CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-196-228
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TELEX: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 100:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA (genomic)
CC SEQUENCE 74 BP; 6 A; 6 C; 1 G; 1 T; 60 OTHER.

Query Match 0.7%; Score 26; DB 5; Length 74;
Best Local Similarity 10.3%; Pred. No. 2.12e-01;
Matches 7; Conservative 20; Mismatches 41; Indels 0; Gaps 0;

DB 3 AGAVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 62
CP 542 AGAGCGCGGACGCGTGCACGAGTGAACGACGCGTGCACGCGGCGACGAGA 483
DB 63 VNNACCAC 70
CP 482 GCCCGCCAC 475

RESULT 14
ID PCT-US95-11934-94 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx
DT COMPUTER READABLE FORM:

DE Sequence 94, Application PC/TUS9511934
CC Sequence 94, Application PC/TUS9511934
CC GENERAL INFORMATION:
CC APPLICANT: Cytogen Corporation
CC TITLE OF INVENTION: Antigen Binding Peptides (Ablides) From
CC TITLE OF INVENTION: Peptide Libraries
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036

CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US95/11934
CC FILING DATE: 20-SEP-1995
CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Mistock, S. Leslie
CC REGISTRATION NUMBER: 18,872
CC REFERENCE/DOCKET NUMBER: 1101-196-228
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (212) 790-9090
CC TELEFAX: (212) 869-9741/8864
CC TELEX: 66141 PENNIE
CC INFORMATION FOR SEQ ID NO: 94:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 74 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: DNA (genomic)
CC SEQUENCE 74 BP; 3 A; 4 C; 3 G; 1 T; 63 OTHER.

Query Match 0.7%; Score 26; DB 5; Length 74;
Best Local Similarity 11.4%; Pred. No. 2.12e-01;
Matches 8; Conservative 19; Mismatches 43; Indels 0; Gaps 0;

DB 3 GAGNNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBNBN 62
CP 541 GAGCGCGGACGCGTGCACGAGTGAACGACGACGCGTGCACCGCGCGACGAG 482
DB 63 BNNBACGCC 72
CP 481 CCCCGACGCC 472

RESULT 15
ID US-08-488-161-100 STANDARD; DNA; UNC; 74 BP.
AC xxxxxx

DE Sequence 100, Application US/08488161
CC Sequence 100, Application US/08488161
CC Patent No. 5885577
CC GENERAL INFORMATION:
CC APPLICANT: Alvarez, Vernon L.
CC TITLE OF INVENTION: Antigen Binding Peptides (Ablides) From
CC TITLE OF INVENTION: Peptide Libraries
CC NUMBER OF SEQUENCES: 103
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Pennie & Edmonds
CC STREET: 1155 Avenue of the Americas
CC CITY: New York
CC STATE: New York
CC COUNTRY: USA
CC ZIP: 10036

CC COMPUTER READABLE FORM:

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CC      MEDIUM TYPE: Floppy disk
CC      COMPUTER: IBM PC compatible
CC      OPERATING SYSTEM: PC-DOS/MS-DOS
CC      SOFTWARE: PatentIn Release #1.0, Version #1.30
CC      CURRENT APPLICATION DATA:
CC      APPLICATION NUMBER: US/08/488,161
CC      FILING DATE: 07-JUN-1995
CC      CLASSIFICATION: 436
CC      ATTORNEY/AGENT INFORMATION:
CC      NAME: MISTOCK, S. Leslie
CC      REGISTRATION NUMBER: 18,872
CC      REFERENCE/DOCKET NUMBER: 1101-176
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE: (212) 790-9090
CC      TELEFAX: (212) 869-9741/8864
CC      TELEX: 66141 PENNIE
CC      INFORMATION FOR SEQ ID NO: 100:
CC      SEQUENCE CHARACTERISTICS:
CC      LENGTH: 74 base pairs
CC      TYPE: nucleic acid
CC      STRANDEDNESS: single
CC      TOPOLOGY: linear
CC      MOLECULE TYPE: DNA
CC      SEQUENCE 74 BP; 6 A; 6 C; 1 G; 1 T; 60 OTHER.

Dn      Query Match          0.7%; Score 26; DB 4; Length 74;
Cp      Best Local Similarity 10.3%; Pred. No. 2,12e-01;
        Matches      7; Conservative 20; Mismatches 41; Indels 0; Gaps 0;

Dn      3 AGA VNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNNVNN 62
        111 : : : : : : : : : : : : : : : : : : : : : : : : : : :
Cp      542 AGAGCGCCACGTCGCCAGCAGTGACACGACGTCGTCGCCACGCGGCGAGCA 483
        63 VNNACCAC 70
        : : 1111
Cp      482 GCCCCAC 475

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Search completed: Tue Jun 27 18:32:24 2000
Job time : 719 secs.

CC	TELECOMMUNICATION INFORMATION:
CC	TELEPHONE: (617) 248-7560
CC	TELEFAX: (617) 248-7100
CC	INFORMATION FOR SEQ ID NO: 23:
CC	SEQUENCE CHARACTERISTICS:
CC	LENGTH: 399 amino acids
CC	TYPE: amino acid
CC	TOPOLOGY: linear
CC	MOLECULE TYPE: protein
CC	SEQUENCE 399 AA; 44764 MW; 790568 CN;
SO	
Db	Query Match 1.4%; Score 118; DB 1; Length 399;
	Best Local Similarity 38.7%; Pred.No.3.48e+00;
Qy	Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;
Db	12 GLALCALGGGSGPRP-HTC-PQRRLG-ARRKRMOREILAVLGLPR-FRPPAQPAAAR 67
Qy	194 GPPLYQLGAQAQARRPPHAGSPRRRLRCERAMNHSVBAGVPLGLPAPGARRGGSASRS 253
Db	68 QP 69
Qy	254 LP 255
RESULT	2 STANDARD; PRT; 399 AA.
ID	US-07-901-703-13
XX	xxxxxx
XX	
DE	Sequence 13, Application US/07901703
CC	Sequence 13, Application US/07901703
CC	Patent No. 5344654
CC	GENERAL INFORMATION:
CC	APPLICANT: RUEGER, DAVID C
CC	APPLICANT: KUBERASAMPATH, THANGAVEL
CC	APPLICANT: OPPERMANN, HERMANN
CC	APPLICANT: OZAKAVYAK, ENGIN
CC	TITLE OF INVENTION: PROSTHETIC DEVICES HAVING ENHANCED
CC	TITLE OF INVENTION: OSTROGENIC PROPERTIES
CC	NUMBER OF SEQUENCES: 22
CC	CORRESPONDENCE ADDRESSES:
CC	ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC	STREET: EXCHANGE PLACE, 53 STATE STREET
CC	CITY: BOSTON
CC	STATE: MA
CC	COUNTRY: USA
CC	ZIP: 02109
CC	COMPUTER READABLE FORM:
CC	MEDIUM TYPE: Floppy disk
CC	COMPUTER: IBM PC compatible
CC	OPERATING SYSTEM: PC-DOS/MS-DOS
CC	SOFTWARE: PatentIn Release #1.0, Version #1.25
CC	CURRENT APPLICATION DATA:
CC	APPLICATION NUMBER: US/07/901,703
CC	FILING DATE: 19920616
CC	CLASSIFICATION: 435
CC	ATTORNEY/AGENT INFORMATION:
CC	NAME: PITCHER ESQ, EDMUND R
CC	REGISTRATION NUMBER: 27,829
CC	REFERENCE/DOCKET NUMBER: STK-057
CC	TELECOMMUNICATION INFORMATION:
CC	TELEPHONE: 617/248-7000
CC	INFORMATION FOR SEQ ID NO: 13:
CC	SEQUENCE CHARACTERISTICS:
CC	LENGTH: 399 amino acids
CC	TYPE: AMINO ACID
CC	TOPOLOGY: linear
CC	MOLECULE TYPE: protein
CC	SEQUENCE 399 AA; 44764 MW; 790568 CN;
SO	

Query Match	1.4%	Score 118:	DB 1:	Length 399:
Best Local Similarity	38.7%	Pred. No. 3,49e+00:		
Matches	24:	Conservative	12:	Mismatches 22; Indels 4; Gaps 4;
Db	68 QP 69			
QY	254 LP 255			
RESULT	3	STANDARD;	PRT;	399 AA.
ID	US-08-278-729A-23			
AC	xxxxxx			
DT				
XX				
DE	Sequence 23, Application US/08278729A			
CC	Sequence 23, Application US/08278729A			
CC	Patent No. 5650276			
CC	GENERAL INFORMATION:			
CC	APPLICANT: SMART, JOHN			
CC	APPLICANT: OPPERMAN, HERMAN			
CC	APPLICANT: OZKIRAK, ENGIN			
CC	APPLICANT: KUBERASAMPATH, THANGAVEL			
CC	APPLICANT: PUNGER, DAVID C.			
CC	APPLICANT: RANG, ROY H. L.			
CC	APPLICANT: COHEN, CHARLES M.			
CC	TITLE OF INVENTION: MORPHOGENIC PROTEIN SCREENING METHOD			
CC	NUMBER OF SEQUENCES: 33			
CC	CORRESPONDENCE ADDRESS:			
CC	ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES			
CC	STREET: 45 SOUTH STREET			
CC	CITY: HOPKINTON			
CC	STATE: MA			
CC	COUNTRY: USA			
CC	ZIP: 01748			
CC	COMPUTER READABLE FORM:			
CC	MEDIUM TYPE: Floppy disk			
CC	COMPUTER: IBM PC compatible			
CC	OPERATING SYSTEM: PC-DOS/MS-DOS			
CC	SOFTWARE: Patentin Release #1.0, Version #1.30			
CC	CURRENT APPLICATION DATA:			
CC	APPLICATION NUMBER: US/08/278,729A			
CC	FILING DATE: 20-JUL-1994			
CC	CLASSIFICATION: 435			
CC	ATTORNEY/AGENT INFORMATION:			
CC	NAME: PITCHER ESQ., EDMUND R.			
CC	REGISTRATION NUMBER: 27,829			
CC	REFERENCE/DOCKET NUMBER: CRP-058CPFW			
CC	TELECOMMUNICATION INFORMATION:			
CC	TELEPHONE: (508) 435-9001			
CC	TELEFAX: (508) 435-6951			
CC	INFORMATION FOR SEQ. ID NO. 23:			
CC	SEQUENCE CHARACTERISTICS:			
CC	LENGTH: 399 amino acids			
CC	TYPE: amino acid			
CC	TOPOLOGY: linear			
CC	MOLECULE TYPE: protein			
CC	SEQUENCE 399 AA; 44764 MW; 790568 CN;			
Db	Query Match	1.4%	Score 118:	DB 1:
Db	Best Local Similarity	38.7%	Pred. No. 3,49e+00:	
Db	Matches	24:	Conservative	12:
Db				Mismatches 22; Indels 4; Gaps 4;
Db	12 GLALCALGGGHGPPR-HTC-PQRRIG-ABERRDMOREILLAVGLPGR-PRPRAQPAAR 67			
QY	194 GPPLYLQGAATQANPPPHASGPRRLCCERAMNHSVREAGVPLGLPAPGARRRGGSASRS 253			

Db 68 QP 69
QY 254 LP 255

RESULT 4
ID US-08-480-528A-10 STANDARD; PRT; 399 AA.
XX
AC xxxxxx
XX
DT
XX
DE Sequence 10, Application US/08480528A
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CC Sequence 10, Application US/08480528A
CC Patent No. 5652118
CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H.L.
CC APPLICANT: COHEN, CHARLES M.
CC TITLE OF INVENTION: OP3-INDUCED MORPHOGENESIS
CC NUMBER OF SEQUENCES: 13
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/480,528A
CC FILING DATE: 07-JUN-1995
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: FENTON Esq., GILLIAN M.
CC REGISTRATION NUMBER: 36,508
CC REFERENCE/DOCKET NUMBER: CRP-076FW
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (617) 248-7560
CC TELEFAX: (617) 248-7100
CC INFORMATION FOR SEQ ID NO: 10:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA: 44764 MW: 790568 CN;

Query Match 1.4%; Score 118; DB 1; Length 399;
Best Local Similarity 38.7%; Pred. No. 3.49e+00;
Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;

Db 12 GLALCALGGHGRRP-RTC-FQRUG-ARERDMOREILAVIGLGR-PRPPAQAAR 67
QY 194 GPELVQLGAATQARPPHSGPRRLGRCERAMNHSYREAGVPLGLPAPGARRRGSGASRS 253
DB 68 QP 69
QY 254 LP 255

RESULT 5
ID US-08-459-346-8 STANDARD; PRT; 399 AA.
XX
AC xxxxxx

XX
DT
DE Sequence 8, Application US/08459346
XX
CC Sequence 8, Application US/08459346
CC Patent No. 5834179
CC GENERAL INFORMATION:
CC APPLICANT: JONES, WILLIAM K
CC APPLICANT: TUCKER, RONALD F
CC APPLICANT: RUEGER, DAVID C
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC TITLE OF INVENTION: NOVEL MORPHOGENIC PROTEIN COMPOSITIONS
CC NUMBER OF SEQUENCES: 23
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR/CREATIVE BIOMOLECULES,
CC INC.
CC STREET: 35 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/459,346
CC FILING DATE:
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/029,335
CC FILING DATE: 04-MAR-1993
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/971,091
CC FILING DATE: 03-NOV-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/946,235
CC FILING DATE: 16-SEP-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/938,336
CC FILING DATE: 08-AUG-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 07/923,780
CC FILING DATE: 31-JUL-1992
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, EDMUND R
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-081CP
CC INFORMATION FOR SEQ ID NO: 8:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA: 44764 MW: 790568 CN;

Query Match 1.4%; Score 118; DB 2; Length 399;
Best Local Similarity 38.7%; Pred. No. 3.49e+00;
Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;

Db 12 GLALCALGGHGRRP-RTC-FQRUG-ARERDMOREILAVIGLGR-PRPPAQAAR 67
QY 194 GPELVQLGAATQARPPHSGPRRLGRCERAMNHSYREAGVPLGLPAPGARRRGSGASRS 253
DB 68 QP 69
QY 254 LP 255

	RESULT	6	PCT-US91-07635-6	STANDARD:	PRT:	399 AA.
ID XX AC XX DT XX DE CC XX						
<p>xxxxxx</p>						
XX	Sequence 6,	Application PC/TUS9107635				
DE						
CC	Sequence 6,	Application PC/TUS9107635				
CC	GENERAL INFORMATION:					
CC	APPLICANT : OPPERMANN, HERMANN					
CC	APPLICANT : OZKAYNAK, ENGIN					
CC	APPLICANT : RUDGER, DAVID C					
CC	APPLICANT : KUBERASAMPATH, THANAGVEL					
CC	TITLE OF INVENTION: OSTROGENIC DEVICES					
CC	NUMBER OF SEQUENCES: 9					
CC	CORRESPONDENCE ADDRESS:					
CC	ADDRESSEE: TESTA, HURWITZ & THIBEAULT					
CC	STREET: 53 STATE STREET					
CC	CITY: BOSTON					
CC	STATE: MA					
CC	COUNTRY: USA					
CC	ZIP: 02109					
CC	COMPUTER READABLE FORM:					
CC	MEDIUM TYPE: Floppy disk					
CC	OPERATING SYSTEM: IBM PC compatible					
CC	SOFTWARE: PatentIn Release #1.0, Version #1.25					
CC	CURRENT APPLICATION DATA:					
CC	APPLICATION NUMBER: PCT/US91/07635					
CC	FILING DATE: 19911018					
CC	CLASSIFICATION:					
CC	ATTORNEY/AGENT INFORMATION:					
CC	NAME: PITCHER ESQ, EDMUND R					
CC	REGISTRATION NUMBER: 27,829					
CC	REFERENCE/DOCKET NUMBER: CRP-056PC					
CC	TELECOMMUNICATION INFORMATION:					
CC	TELEPHONE: 617/248-7000					
CC	TELEFAX: 617/248-7100					
CC	INFORMATION FOR SEQ ID NO: 6:					
CC	SEQUENCE CHARACTERISTICS:					
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CC	TYPE: AMINO ACID					
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CC	MOLECULE TYPE: protein					
SQ	SEQUENCE 399 AA; 44274 MW; 789130 CN;					
<p>Query Match 1.4%; Score 118; DB 3; Length 399; Best Local Similarity 39.7%; Pred.No.3.49e+00; Matches 25; Conservative 13; Mismatches 19; Indels 6; Gaps 6;</p>						
Dd	12	GIALCALGGGPGGLRPP-GC-PQRRLG-ANDRDVQ-RKITAVYIGLGR-PRRPAPPAAAS	66			
YY	194	GPPLQLGAATQA-RPPHSGSPRRRLCEFERAMNHSVFREAGVPILGPLAPGARRGGSASR	252			
Dd YY	67	RLP	69			
OY	253	SLP	255			
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XX	Sequence 23,	Application PC/TUS9308808				
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CC	Sequence 23,	Application PC/TUS9308808				
CC	GENERAL INFORMATION:					

CC		APPLICANT:	MORPHOGEN-INDUCED LAYER REGENERATION
CC		TITLE OF INVENTION:	NUMBER OF SEQUENCES: 33
CC		CORRESPONDENCE ADDRESS:	ADDRESSSEE: CREATIVE BIOMOLECULES, INC.
CC		STREET: 45 SOUTH STREET	CITY: HOPKINTON
CC		STATE: MA	COUNTRY: USA
CC		ZIP: 01748	
CC		COMPUTER READABLE FORM:	MEDIUM TYPE: Floppy disk
CC		OPERATING SYSTEM: PC-DOS/MS-DOS	SOFTWARE: PatentIn Release #1.0, Version #1.25
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CC		FILING DATE:	CLASSIFICATION:
CC		PRIOR APPLICATION DATA:	APPLICATION NUMBER:
CC		FILING DATE:	AFFOREY/AGENT INFORMATION:
CC		NAME: KELLEY ESQ, ROBIN D.	REGISTRATION NUMBER: 34,637
CC		REFERENCE/DOCKET NUMBER: CRP-072	TELECOMMUNICATION INFORMATION:
CC		TELEPHONE: 617/248-7477	TELEFAX: 617/248-7100
CC		INFORMATION FOR SEQ ID NO: 23:	SEQUENCE CHARACTERISTICS:
CC		LENGTH: 399 amino acids	TYPE: amino acid
CC		TOPOLOGY: linear	MOLECULE TYPE: protein
SQ		SEQUENCE 399 AA; 44764 MW; 790568 CN;	
Dy		Query Match	1.4%; Score 118; DB 3; Length 399;
Bd		Best Local Similarity 38.7%; Pred. No. 3.49e+00;	Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 7;
Dy		12 GLAALGSGHGRPP-RTC-PORLG-AFRRRDQRETLAVLGLPGR-PPRAQPAAAR 67 : :::: : :	: ::: GPPLYLQAIAIQARPFPASGPRRLCGCRAMNHSVLRAGYPVLGIPIACARRRGGSASSRS 253
Dy		68 QP 69	
Oy		254 LP 255	
ID	RESULT 8		
ID	PCT-US93-08742-23	STANDARD;	PRT; 399 AA.
XX	xxxxxx		
DT			
DE		Sequence 23, Application PC/TU9308742	
XX		Sequence 23, Application PC/TU9308742	
CC		GENERAL INFORMATION:	
CC		APPLICANT:	
CC		TITLE OF INVENTION:	MORPHOGEN-INDUCED PERIODONTAL TISSUE REGENERATION
CC		NUMBER OF SEQUENCES: 33	
CC		CORRESPONDENCE ADDRESS:	
CC		ADDRESSEE: CREATIVE BIOMOLECULES, INC.	
CC		STREET: 45 SOUTH STREET	
CC		CITY: HOPKINTON	
CC		STATE: MA	
CC		COUNTRY: USA	
CC		ZIP: 01748	
CC		COMPUTER READABLE FORM:	
CC		MEDIUM TYPE: Floppy disk	

CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US93/08742
CC FILING DATE:
CC CLASSIFICATION:
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER:
CC FILING DATE:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: KELLEY ESO, ROBIN D.
CC REGISTRATION NUMBER: 34,637
CC REFERENCE/DOCKET NUMBER: CRP-067
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 617/248-7477
CC TELEFAX: 617/248-7100
CC INFORMATION FOR SEQ ID NO: 23:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA; 44764 MW; 790568 CN;
SQ

Query Match 1.4%; Score 118; DB 3; Length 399;
Best Local Similarity 38.7%; Pred. No. 3.49e+00;
Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;

Db 12 GLALCALGGGHRPP-RTC-PORRLG-ARERRDMOREILAVLGGR-PRRPAOPAAAR 67
QY 194 GPLVLQGAATGARPPPHASGPRRRIGCERANWHSVREAGVPLGLPAPGARRRGGASAS 253
DB 68 QP 69
QY 254 LP 255

RESULT 9
ID PCT-US93-05446-13 STANDARD; PRT; 399 AA.
AC xxxxxx
DE Sequence 13, Application PC/TUS9305446
CC Sequence 13, Application PC/TUS9305446
CC GENERAL INFORMATION:
CC APPLICANT:
CC TITLE OF INVENTION: PROSTHETIC DEVICES HAVING ENHANCED
CC TITLE OF INVENTION: OSTEOGENIC PROPERTIES
CC NUMBER OF SEQUENCES: 22
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Creative Biomolecules, Inc.
CC STREET: 35 South Street
CC CITY: Hopkinton
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US93/05446
CC FILING DATE: 19930608
CC CLASSIFICATION:
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER ESO, EDMUND R
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: STK-057

CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 617/248-7000
CC INFORMATION FOR SEQ ID NO: 13:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: AMINO ACID
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA; 44764 MW; 790568 CN;
SQ

Query Match 1.4%; Score 118; DB 3; Length 399;
Best Local Similarity 38.7%; Pred. No. 3.49e+00;
Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;

Db 12 GLALCALGGGHRPP-RTC-PORRLG-ARERRDMOREILAVLGGR-PRRPAOPAAAR 67
QY 194 GPLVLQGAATGARPPPHASGPRRRIGCERANWHSVREAGVPLGLPAPGARRRGGASAS 253
DB 68 QP 69
QY 254 LP 255

RESULT 10
ID PCT-US93-07190-23 STANDARD; PRT; 399 AA.
AC xxxxxx
DE Sequence 23, Application PC/TUS9307190
XX Sequence 23, Application PC/TUS9307190
CC GENERAL INFORMATION:
CC APPLICANT:
CC TITLE OF INVENTION: MORPHOGEN-ENRICHED DIETARY COMPOSITION
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: CREATIVE BIOMOLECULES, INC.
CC STREET: 35 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: PCT/US93/07190
CC ATTORNEY/AGENT INFORMATION:
CC NAME: KELLEY, ROBIN D.
CC REGISTRATION NUMBER: 34,637
CC REFERENCE/DOCKET NUMBER: CRP-071
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 617/248-7000
CC TELEFAX: 617/248-7100
CC INFORMATION FOR SEQ ID NO: 23:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA; 44764 MW; 790568 CN;
SQ

Query Match 1.4%; Score 118; DB 3; Length 399;
Best Local Similarity 38.7%; Pred. No. 3.49e+00;
Matches 24; Conservative 12; Mismatches 22; Indels 4; Gaps 4;

Db 12 GLALCALGGGHRPP-RTC-PORRLG-ARERRDMOREILAVLGGR-PRRPAOPAAAR 67
QY 194 GPLVLQGAATGARPPPHASGPRRRIGCERANWHSVREAGVPLGLPAPGARRRGGASAS 253

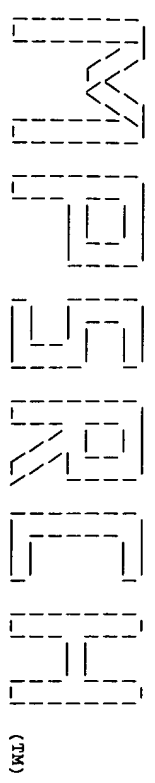
RESULT 13
ID US-08-447-570-27 STANDARD; PRT: 399 AA.
AC xxxxxx
DT
XX
DE Sequence 27, Application US/08447570
CC Sequence 27, Application US/08447570
CC Patent No. 5714589
CC GENERAL INFORMATION:
CC APPLICANT: OPPERMAN, HERMANN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H. L.
CC TITLE OF INVENTION: OSTEOGENIC DEVICES
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESSES:
CC ADDRESSEE: TESTA, HURWITZ & THIBEAULT
CC STREET: 53 STATE STREET
CC CITY: BOSTON
CC STATE: MASSACHUSETTS
CC COUNTRY: U.S.A.
CC ZIP: 02109
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.25
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/447,570
CC FILING DATE: 21-FEB-1992
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 810,560
CC FILING DATE: 20-DEC-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 827,052
CC FILING DATE: 28-JAN-1992
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 660,162
CC FILING DATE: 22-FEB-1991
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,988
CC FILING DATE: 04-DEC-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 621,849
CC FILING DATE: 04-DEC-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 616,374
CC FILING DATE: 21-NOV-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 600,024
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 599,543
CC FILING DATE: 18-OCT-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 579,865
CC FILING DATE: 07-SEP-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 569,920
CC FILING DATE: 20-AUG-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 483,913
CC FILING DATE: 22-FEB-1990
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 422,613
CC FILING DATE: 17-OCT-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 315,342

CC FILING DATE: 23-FEB-1989
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 232,630
CC FILING DATE: 15-AUG-1988
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 179,460
CC FILING DATE: 08-APR-1988
CC ATTORNEY/AGENT INFORMATION:
CC NAME: PITCHER, EDMUND R.
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-001CP6
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 617/248-7000
CC TELEFAX: 617/248-7100
CC INFORMATION FOR SEQ ID NO: 27:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA; 44764 MW; 790568 CN;
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Best Local Similarity 38.7%; Pred. No. 3.49e+00;
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CC Sequence 23, Application US/08451953A
CC Patent No. 5741641
CC GENERAL INFORMATION:
CC APPLICANT: SMART, JOHN
CC APPLICANT: OPPERMAN, HERMAN
CC APPLICANT: OZKAYNAK, ENGIN
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: RUEGER, DAVID C.
CC APPLICANT: PANG, ROY H. L.
CC APPLICANT: COHEN, CHARLES M.
CC TITLE OF INVENTION: MORPHOGENIC PROTEIN SCREENING METHOD
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESSES:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/451,953A
CC FILING DATE: 26-MAY-1995
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:

CC NAME: PITCHER Esq., EDMUND R.
CC REGISTRATION NUMBER: 27,829
CC REFERENCE/DOCKET NUMBER: CRP-058CN
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (508) 435-9001
CC TELEFAX: (508) 435-6951
CC INFORMATION FOR SEQ ID NO: 23:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids
CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA: 44764 MW; 790568 CN;
SQ
Query Match 1.4%; Score 118; DB 1; Length 399;
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Db 12 GLALCALGGHGPRPP-HTC-PQRLG-ARERRDQREILAVGLPGR-PRPRAQPAAR 67
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XX Patent No. 5733878
CC GENERAL INFORMATION:
CC APPLICANT: KUBERASAMPATH, THANGAVEL
CC APPLICANT: ROEGER, DAVID C.
CC APPLICANT: OPPERMAN, HERMAN
CC APPLICANT: COHEN, CHARLES M.
CC APPLICANT: PANG, ROY H.L.
CC TITLE OF INVENTION: MORPHOGENIC-INDUCED PERIODONTAL TISSUE
CC TITLE OF INVENTION: REGENERATION.
CC NUMBER OF SEQUENCES: 33
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
CC STREET: 45 SOUTH STREET
CC CITY: HOPKINTON
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 01748
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/643,763A
CC FILING DATE: 06-MAY-1996
CC CLASSIFICATION: 514
CC ATTORNEY/AGENT INFORMATION:
CC NAME: FENTON Esq., GILTIAN M.
CC REGISTRATION NUMBER: 36,508
CC REFERENCE/DOCKET NUMBER: CRP-067CN
CC TELECOMMUNICATION INFORMATION:
CC TELEFAX: (617) 248-7100
CC TELEPHONE: (617) 248-7560
CC INFORMATION FOR SEQ ID NO: 23:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 399 amino acids

CC TYPE: amino acid
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 399 AA: 44764 MW; 790568 CN;
SQ
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QY 194 GPLLYQLGAATQARPPPHASGPRRRIGCERAWNHSVREAGVPLGLPAPGARRRGGSASNS 253
Db 68 QP 69
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Search completed: Tue Jun 27 15:08:15 2000
Job time : 38 secs.



Release 3.1A John F. Collins, Biocomputing Research Unit.
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Mpsrch_n n.a. - n.a. database search, using Smith-Waterman algorithm
Run on: Tue Jun 27 15:57:26 2000; Maspar time 3980.31 Seconds
Tabular output not generated. 1355.693 Million cell updates/sec

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Scoring table: TABLE default
Gap 6

Nmatch STD : Dbase 0; Query 0

Searched: 2868244 seqs, 947344977 bases x 2

Post-processing: Minimum Match 0%
Listing first 45 summaries

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60:U140C 60:U140D 60:U140E 60:U140F 60:U140G 60:U140H 60:U140I 60:U140J 60:U140K 60:U14

```

CC      REGISTRATION NUMBER: 34,688
CC      REFERENCE/DOCKET NUMBER: A-433B
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE: (805) 447-6504
CC      TELEFAX: (805) 499-8011
CC      INFORMATION FOR SEQ ID NO: 13:
CC      SEQUENCE CHARACTERISTICS:
CC      LENGTH: 2848 base pairs
CC      TYPE: nucleic acid
CC      STRANDEDNESS: single
CC      TOPOLOGY: linear
CC      MOLECULE TYPE: CDNA
SQ      SEQUENCE 2848 BP: 437 A; 978 C; 945 G; 488 T; 0 OTHER

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Query Match	100.0%;	Score 2848;	DB 46;	Length 2848;
Best Local Similarity	100.0%;	Pred. No. 0.00e+00;		
Matches 2848; Conservative	0;	Mismatches 0;	Indels 0;	Gaps 0;

D	b	1	CACGCGCCGGGACAGCGCTGCTCTGCTGGGACAGTGGGAAAGCCGAGCCCGGGCCAC	60
Q	y	1	CACGCGTCCGGGACAGCGCTGCTCTGCTGGGACAGTGGGAAAGCCGAGCCCGGGCCAC	60
D	b	61	CCGCGATGCCGCGCGCTCCCGCTGGCCAGACCGTGGCGCTCCCTGCTGCGAGCCACTAC	120
Q	y	61	CCCGCGATGCCGCGCGCTCCCGCTGGCCAGACCGTGGCGCTCCCTGCTGCGAGCCACTAC	120
D	b	121	CGGAGGCGTCCCGCGTGGGCGACCTTCGTGGGGGCGCTGGGGGCCCAAGGCTGGGCGTG	180
Q	y	121	CGGAGGCGTCCCGCGTGGGCGACCTTCGTGGGGGCGCTGGGGGCCCAAGGCTGGGCGTG	180
D	b	181	GTGAGCGCGGGGAGACCCGGCGCTTTCCGCGCGCTGGGAGGCCCATGACTGTGTGGGTG	240
Q	y	181	GTGAGCGCGGGGAGACCCGGCGCGCTTTCCGCGCGCTGGGAGGCCCATGACTGTGTGGGTG	240
D	b	241	CCCTGGAGCAGCAGCGCGCCCGCCCGCGCCCTCTTCCTCCGACAGTGTCTGCTGCTAAG	300
Q	y	241	CCCTGGAGCAGCAGCGCGCGCCCGCCCGCGCCCTCTTCCTCCGACAGTGTCTGCTGCTAAG	300
D	b	*301	GAGTGGGAGCGCGAGTGGCTGCAGAGCTGTGGCAGGCGGGCGGGAAGACGTCTTGCC	360
Q	y	301	GAGTGGGAGCGCGAGTGGCTGCAGAGCTGTGGCAGGCGGGCGGGAAGACGTCTTGCC	360
D	b	361	TTGCGCTTCGCGCTGCTGGAGCGGGGCCCGCGGGGCCCGCCGAGGCTTCACACACAGC	420
Q	y	361	TTGCGCTTCGCGCTGCTGGAGCGGGGCCCGCGGGGCCCGCCGAGGCTTCACACACAGC	420
D	b	421	GTGGCGACTACTCTGCGCCACACGCTGACCGCACTCGGGGGAGCGGGGCGTGGGGG	480
Q	y	421	GTGGCGACTACTCTGCGCGCCACACGCTGACCGCACTCGGGGGAGCGGGGCGTGGGGG	480
D	b	481	CTGCTGCGCCCGCGTGGGGAGCAGCGTGTGTTACCTGCTGGGAGCGGTGGGCGCTC	540
Q	y	481	CTGCTGCTGCGCCCGCGTGGGGAGCAGCGTGTGTTACCTGCTGGGAGCGGTGGGCGCTC	540
D	b	541	TTTGTGCTGTGGCTCCAGCTGGCGCTACCAAGTGTGGGGCGCGCTGTATACACTC	600
Q	y	541	TTTGTGCTGTGGCTCCAGCTGGCGCTACCAAGTGTGGGGCGCGCTGTATACACTC	600
D	b	601	GGCGCTGCACTACAGCCCGGGCCCCCGCGACACGCTAGTGAACCCCGAAGGCGTCTGGA	660
Q	y	601	GGCGCTGCACTACAGCCCGGGCCCCCGCGACACGCTAGTGAACCCCGAAGGCGTCTGGA	660
D	b	661	TGCGAAGCGGCGCTGGAACCATAGGCTCAGGGAGGCGCGGGTCCCTTGGGCTCCAGCC	720
Q	y	661	TGCGAAGCGGCGCTGGAACCATAGGCTCAGGGAGGCGCGGGTCCCTTGGGCTCCAGCC	720
D	b	721	CCGGGTGCGAGAGGCGCGGGGGAGTGCACAGCCGAATGCTGCCGTTGCCAAGAAGGCC	780
Q	y	721	CCGGGTGCGAGAGGCGCGGGGGAGTGCACAGCCGAATGCTGCCGTTGCCAAGAAGGCC	780
D	b	781	AGGCGTGGCGCTGCGCCTGAGACCGGAGCGACGCCGTTGGGCAAGGGTCTCTGGGCCAC	840
Q	y	*.781	AGGCGTGGCGCTGCGCCTGAGACCGGAGCGACGCCGTTGGGCAAGGGTCTCTGGGCCAC	840

D	841	CCGGGACAGAGGCGTGGACCGGAGCGATGACCGGTGGTTCTGTGTGGTGTACCTGGCAGAAC	900
O	841	CCGGGACAGAGGCGTGGACCGGAGCGATGACCGGTGGTTCTGTGTGGTGTACCTGGCAGAAC	900
D	901	GCCCAAGAACCCATCTCTTGTGAGGGGTGGCTCTGTGGACACGGCACCTCCACCACATCC	960
O	901	GCCCAAGAACCCATCTCTTGTGAGGGGTGGCTCTGTGGACACGGCACCTCCACCACATCC	960
D	961	GTGGGGCCCGCCAGACACCAACGGGGGGCCCCCATCATATGCGGGCCACAGCTCCCTGGGAC	1020
O	961	GTGGGGCCCGCCAGACACCAACGGGGGGCCCCCATCATATGCGGGCCACAGCTCCCTGGGAC	1020
D	1021	ACGGCTTGTCCCCCGGTGTACGGCCGAGACCAAGCACTTCTCTACTCTCCAGGCGACAG	1080
O	1021	ACGGCTTGTCCCCCGGTGTACGGCCGAGACCAAGCACTTCTCTACTCTCCAGGCGACAG	1080
D	1081	GAGCAGCTGGGGCCCTCTCTCTACTACTAGCTCTGTAGGCCACGCTGACTGTGGCTGG	1140
O	1081	GAGCAGCTGGGGCCCTCTCTCTACTACTAGCTCTGTAGGCCACGCTGACTGTGGCTGG	1140
D	1141	AGGCTGTGAGGAGACATCTTCTGGGTTTCAGAGCCCTGGATCCAGGGACCTCCCGCAGG	1200
O	1141	AGGCTGTGAGGAGACATCTTCTGGGTTTCAGAGCCCTGGATCCAGGGACCTCCCGCAGG	1200
D	1201	TTGGCCCGCCCTGGCCAGGGCTACTGGCAAAATGGGGCCCTGTCTGTAGACTGCTGGG	1260
O	1201	TTGGCCCGCCCTGGCCAGGGCTACTGGCAAAATGGGGCCCTGTCTGTAGACTGCTGGG	1260
D	1261	AACACGCGCAGTGGCCCTCTAGGGGGTGTCTCTAGACGCACTGGCCGCTGGAGCTGG	1320
O	1261	AACACGCGCAGTGGCCCTCTAGGGGGTGTCTCTAGACGCACTGGCCGCTGGAGCTGG	1320
D	1321	GTCACCCAGCAGCGGCTGTCTGTGGCCGGGAGAAAGCCCAAGGGCTGTGGCGGCCCC	1380
O	1321	GTCACCCAGCAGCGGCTGTCTGTGGCCGGGAGAAAGCCCAAGGGCTGTGGCGGCCCC	1380
D	1381	GAGCAGGAGGACACAGACCCCGTGGCTGTGTGACGCTCTCCGACACAGACGCCCC	1440
O	1381	GAGCAGGAGGACACAGACCCCGTGGCTGTGTGACGCTCTCCGACACAGACGCCCC	1440
D	1441	TGGAGGTGTACGGCTTCTGTGGGGGCTCTGTGGCGGCTGTGTGCCGCCAGGCGCTTGG	1500
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O	1501	GCGTCCAGGCAACAAGCGCGCTTCTTAGAGAACACCAAGAGTTATCTCCCTGGGG	1560
D	1561	AAGGATCGCAAGCTCTGGCTGCGAGGAGGCTGAGTGGAAATAGGTGCGGGACGCGCT	1620
O	1561	AAGGATCGCAAGCTCTGGCTGCGAGGAGGCTGAGTGGAAATAGGTGCGGGACGCGCT	1620
D	1621	TGGCTGGCAGAGAGCCAGGGGTTGGCTGTGTCCGGCCGACAGACACCGTGTGGCTAG	1680
O	1621	TGGCTGGCAGAGAGCCAGGGGTTGGCTGTGTCCGGCCGACAGACACCGTGTGGCTAG	1680
D	1681	GAGATCTGGGCAAGTCTCTGCACTGGCTGTAGTAGTGTGTACTGTGTGAGCTGTCAAG	1740
O	1681	GAGATCTGGGCAAGTCTCTGCACTGGCTGTAGTAGTGTGTGTACTGTGTGAGCTGTCAAG	1740
D	1741	TCTTCTTTTATGTACAGGAGACAGCTTCAAAAGAACAGGCTCTTTTGTACCGGAG	1800
O	1741	TCTTCTTTTATGTACAGGAGACAGCTTCAAAAGAACAGGCTCTTTTGTACCGGAG	1800
D	1801	AGTGTCTGAGACAAGTGTCAAAAGCATTTGGAATCAGACACTTGAAGAGGGTGCAGTG	1860
O	1801	AGTGTCTGAGACAAGTGTCAAAAGCATTTGGAATCAGACACTTGAAGAGGGTGCAGTG	1860
D	1861	CGGAGCTGTGCGAAGAGAGGTTCAGGACGATCGGGAAGCCAGGCCCGCCCTGCTAGC	1920
O	1861	CGGAGCTGTGCGAAGAGAGGTTCAGGACGATCGGGAAGCCAGGCCCGCCCTGCTAGC	1920

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DB 1981 GTCTGGGAGCCAGAACGTTCCCGAGAGAAAGAGGGCCGAGCGTCTCACTCTGAGAGGTG 2040
CC |||||||
CC 1981 GTCTGGGAGCCAGAACGTTCCCGAGAGAAAGAGGGCCGAGCGTCTCACTCTGAGAGGTG 2040
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DB 2041 AAGGCACTGTTAGCGTGCTCAACTACGAGCGGGCGGCGGCGGCTCTCTGGGCGCC 2100
CC |||||||
CC 2041 AAGGCACTGTTAGCGTGCTCAACTACGAGCGGGCGGCGGCGGCTCTCTGGGCGCC 2100
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DB 2101 TCTGCTGGGCTGAGATATCCACAGGGCTGGCGGCACTTCTGCTGCTGGTGGCGG 2160
CC |||||||
CC 2101 TCTGCTGGGCTGAGATATCCACAGGGCTGGCGGCACTTCTGCTGCTGGTGGCGG 2160
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DB 2161 GCCCAGAGACCCCGCGCTGAGCTGTAATTTGTCAAGGTGATGAGAGGGCGGCTGAC 2220
CC |||||||
CC 2161 GCCCAGAGACCCCGCGCTGAGCTGTAATTTGTCAAGGTGATGAGAGGGCGGCTGAC 2220
CC |||||||
DB 2221 ACCATCCCCAGAGACGCTCAAGAGGTGATGCCAGCATATCAACCCAGAACAG 2280
CC |||||||
CC 2221 ACCATCCCCAGAGACGCTCAAGAGGTGATGCCAGCATATCAACCCAGAACAG 2280
CC |||||||
DB 2281 TACTGGTGGCTGAGTGGCGGTGTCAGAGGGCGGCGGCACTGCGGCAAGGCC 2340
CC |||||||
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CC |||||||
DB 2341 TTCAAGAGCCAGCTGCTCACTTGAACAGACTCAAGCCCTACATGCGAGATTTGCGGCT 2400
CC |||||||
CC 2341 TTCAAGAGCCAGCTGCTCACTTGAACAGACTCAAGCCCTACATGCGAGATTTGCGGCT 2400
CC |||||||
DB 2401 CACCTGACAGAGACCAAGCCCGCTGAGAGGATGCCGTGTCATGAGAGAGCTCTCTCTG 2460
CC |||||||
CC 2401 CACCTGACAGAGACCAAGCCCGCTGAGAGGATGCCGTGTCATGAGAGAGCTCTCTCTG 2460
CC |||||||
DB 2461 AATGAGGCGAGAGTGGCTCTTGCAGAGCTCTTCACTGATGTCACACAGCGCGTG 2520
CC |||||||
CC 2461 AATGAGGCGAGAGTGGCTCTTGCAGAGCTCTTCACTGATGTCACACAGCGCGTG 2520
CC |||||||
DB 2521 CGCATCAGGCGGACAGTCTTCACTGACAGAGGATCCCGAGGGCTCCATCTCTCTC 2580
CC |||||||
CC 2521 CGCATCAGGCGGACAGTCTTCACTGACAGAGGATCCCGAGGGCTCCATCTCTCTC 2580
CC |||||||
DB 2581 ACGTGTCTGCAAGCTGTGCTACAGGCGACATGAGAGAACAGCTGTTGCGGGGATTCG 2640
CC |||||||
CC 2581 ACGTGTCTGCAAGCTGTGCTACAGGCGACATGAGAGAACAGCTGTTGCGGGGATTCG 2640
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DB 2641 CGGAGCGGCTCTCTGCTTGGGATGATTTCTTGTGTGACACTCACTCACTCAC 2700
CC |||||||
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DB 2701 CACGAGAAACCTTCTCTAGACCTGATCCGAGGTGTCCTGATGATGCTGCGTGGTG 2760
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DB 2821 TTTGTTCAAGATCGCGGCGGCGGCTAT 2848
CC |||||||
CC 2821 TTTGTTCAAGATCGCGGCGGCGGCTAT 2848
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CC APPLICANT: Robinson, Murray O.
CC TITLE OF INVENTION: NOVEL GENES ENCODING TELOMERASE PROTEINS
CC NUMBER OF SEQUENCES: 44
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Amgen Inc.
CC STREET: One Amgen Center Drive
CC CITY: Thousand Oaks
CC STATE: CA
CC COUNTRY: USA
CC ZIP: 91320-1789
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/951,733
CC FILING DATE: 16-OCT-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/873,039
CC FILING DATE: 11-JUN-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/751,189
CC FILING DATE: 15-NOV-1996
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Oleski, Nancy A.
CC REGISTRATION NUMBER: 34,688
CC REFERENCE/DOCKET NUMBER: A-433B
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (805) 447-6504
CC TELEFAX: (805) 499-8011
CC INFORMATION FOR SEQ ID NO: 19:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 3798 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: cDNA
CC SEQUENCE 3798 BP; 613 A; 1310 C; 1213 G; 662 T; 0 OTHER.
Query Match 100.0%; Score 2848; DB 46; Length 3798;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 2848; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB 2 CACGGCTCCGGGACAGCGCTGCTGCTGCTGCGACGTGGGAAGCCCTGCGCGGCGAC 61
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CC |||||||
CC 61 CCGCGGATGCGCGGCTGCCGCTGCGAGCGCTGCGCTCCCTGCTGCGAGCACTAC 120
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DB 182 GTGACAGCGGAGGACCGGCGGCTTTCGCGGCTGCTGCGGCGGCGGCGGCGGCTG 241
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DB 242 CCTGGGAGGACAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 301
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CC |||||||
DB 362 TTGCGCTTGGCGCTGAGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 421
CC |||||||
CC 362 TTGCGCTTGGCGCTGAGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 420
CC |||||||
DB 361 TTGCGCTTGGCGCTGAGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 420
CC |||||||
CC 361 TTGCGCTTGGCGCTGAGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 420
CC |||||||

RESULT 2
ID US-08-951-733-19 STANDARD; DNA; UNC; 3798 BP.
AC xxxxxx
DT
Sequence 19, Application US/08951733
DE
Sequence 19, Application US/08951733
CC GENERAL INFORMATION:
CC APPLICANT: Harrington, Lea A.

Db 422 GTGGCAGCTACTCTGCCCCAACACGGGTGACCGACCACTGCGGGGGAGCGGGGCTGGGGG 481
QY |||||
QY 421 GTGGGAGCTACTCTGCCCCAACACGGGTGACCGACCACTGCGGGGGAGCGGGGCTGGGGG 480
Db 482 CTGCTGTGGCCCGCTGGGGGAGCAGACGTGTGTTTCACTGCTGGGACGCTGGCGCTC 541
QY |||||
QY 481 CTGCTGTGGCCCGCTGGGGGAGCAGACGTGTGTTTCACTGCTGGGACGCTGGCGCTC 540
Db 542 TTTGTGCTGTGGCTCCGACGTGCGCTTACCAGGTGTGGGGGCGCGCTGTACAGCTC 601
QY |||||
QY 541 TTTGTGCTGTGGCTCCGACGTGCGCTTACCAGGTGTGGGGGCGCGCTGTACAGCTC 600
Db 602 GGGCTGCTCACTAGGCG 661
QY |||||
QY 601 GGGCTGCTCACTAGGCG 660
Db 662 TGCAGAGGGGCTTGAACATATAGCTGACGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 721
QY |||||
QY 661 TGCAGAGGGGCTTGAACATATAGCTGACGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 720
Db 722 CCGGCTGCGAGGAGGCGCGGGGGGAGTGCCAGCGGAAGTCTGCCGTTGCCAGAGGCGCC 781
QY |||||
QY 721 CCGGCTGCGAGGAGGCGCGGGGGGAGTGCCAGCGGAAGTCTGCCGTTGCCAGAGGCGCC 780
Db 782 AGGCTGGGCGCTGGCCCTGAGGCGCGGAGCGGCGCGCTTGGGCGAGGGCTCTGGGCGCAC 841
QY |||||
QY 781 AGGCTGGGCGCTGGCCCTGAGGCGCGGAGCGGCGCGCTTGGGCGAGGGGCTCTGGGCGCAC 840
Db 842 CCGGCGAGGAGCGCTGAGACCGAGTGTGTTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 901
QY |||||
QY 841 CCGGCGAGGAGCGCTGAGACCGAGTGTGTTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 900
Db 902 GCCGAAGAACCTCTTTTGGAGGGTGCGCTCTGTGGACGCGCCACTCCACCCATCC 961
QY |||||
QY 901 GCCGAAGAACCTCTTTTGGAGGGTGCGCTCTGTGGACGCGCCACTCCACCCATCC 960
Db 962 GTGGGCGCGCAGCAGCAGCGGGGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1021
QY |||||
QY *961 GTGGGCGCGCAGCAGCAGCGGGGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1020
Db 1022 ACGCCCTTGTCCCCCGGTGTACGCGGAGACCAAGCACTTCTCTACTCTCTCAAGGAGCAAG 1081
QY |||||
QY 1021 ACGCCCTTGTCCCCCGGTGTACGCGGAGACCAAGCACTTCTCTACTCTCTCAAGGAGCAAG 1080
Db 1082 GAGCAGCTGCGGGCGCTCTTCTACTAGCTCTGTAGGCCAGCGTACTGCGCTCGG 1141
QY |||||
QY 1081 GAGCAGCTGCGGGCGCTCTTCTACTAGCTCTGTAGGCCAGCGTACTGCGCTCGG 1140
Db 1142 AGGCTGTGGAGCATCTTCTGGGTTCCAGGCGCGTGGATGCCAGGAGACTCCCGCGAG 1201
QY |||||
QY 1141 AGGCTGTGGAGCATCTTCTGGGTTCCAGGCGCGTGGATGCCAGGAGACTCCCGCGAG 1200
Db 1202 TTTGCCCGCGCTGCCAGCGCTACTTGGCAATGCGGCGCGCTGTTTCTGAGACTGTTGG 1261
QY |||||
QY 1201 TTTGCCCGCGCTGCCAGCGCTACTTGGCAATGCGGCGCGCTGTTTCTGAGACTGTTGG 1260
Db 1262 AACCAAGCGCAGTGTCCCTTACGGGGGTCTCTCAAGAGCACTCCCGCTGCGAGTGG 1321
QY |||||
QY 1261 AACCAAGCGCAGTGTCCCTTACGGGGGTCTCTCTCAAGAGCACTCCCGCTGCGAGTGG 1320
Db 1322 GTCAACCCAGAGCGGGGTGTGTGCGCGGAGAAAGCCCAAGGGCTGTGTGGGGGGCGCC 1381
QY |||||
QY 1321 GTCAACCCAGAGCGGGGTGTGTGCGCGGAGAAAGCCCAAGGGCTGTGTGGGGGGCGCC 1380
Db 1382 GAGGAGGAGGAGACAGACCCCGCTGCGCTGTGTGAGTGTGTCTCCGACAGCAGAGCGCC 1441
QY |||||
QY 1381 GAGGAGGAGGAGACAGACCCCGCTGCGCTGTGTGAGTGTGTCTCCGACAGCAGAGCGCC 1440
Db 1442 TTGGAGGTGTAGGGCTTGTGTGCGGGGGCTGCTGCGCGGGCTGTGTGGCGCGCGCTTGG 1501
QY |||||
QY 1441 TTGGAGGTGTAGGGCTTGTGTGCGGGGGCTGCTGCGCGGGCTGTGTGGCGCGCGCTTGG 1500
Db 1502 GGCTCAGGACCAAGAGCGCGCTTCTCAGAAACCAAGAGTTCTATCTCCCTGGGG 1561
QY |||||

QY 1501 GGCTCAGGACCAAGAGCGCGCTTCTCAGAAACCAAGAGTTCTATCTCCCTGGGG 1560
Db 1562 AAGCATGCGCAAGCTCTGCTGCGAGAGTACTGTGAAGATGAGCTGGGGAGCTGCGCT 1621
QY |||||
QY 1561 AAGCATGCGCAAGCTCTGCTGCGAGAGTACTGTGAAGATGAGCTGGGGAGCTGCGCT 1620
Db 1622 TGGCTGCGAGAGCGCCAGGGGTTGGCTGTGTTCCGGCGCGAGAGCAGCGTGTGCTGAG 1681
QY |||||
QY 1621 TGGCTGCGAGAGCGCCAGGGGTTGGCTGTGTTCCGGCGCGAGAGCAGCGTGTGCTGAG 1680
Db 1682 GAGATCTGGCCCAAGTTCTTCCGACTGGCTGATGATGATGATGATGATGATGATGATGATGAT 1741
QY |||||
QY 1681 GAGATCTGGCCCAAGTTCTTCCGACTGGCTGATGATGATGATGATGATGATGATGATGATGAT 1740
Db 1742 TCTTTCTTTATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1801
QY |||||
QY 1741 TCTTTCTTTATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1800
Db 1802 AGTGTGAGCAAGTTTGCAGAACTTGGATGATGATGATGATGATGATGATGATGATGATGATGAT 1861
QY |||||
QY 1801 AGTGTGAGCAAGTTTGCAGAACTTGGATGATGATGATGATGATGATGATGATGATGATGATGAT 1860
Db 1862 CCGGAGCTGTGCGAAGAGAGAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGAT 1921
QY |||||
QY 1861 CCGGAGCTGTGCGAAGAGAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1920
Db 1922 TCCAGACTCCGCTTCAATCCCAAGCTGAGCGGGCTGCGCGGCTGCTGATGATGATGATGATGAT 1981
QY |||||
QY 1921 TCCAGACTCCGCTTCAATCCCAAGCTGAGCGGGCTGCGCGGCTGCTGATGATGATGATGATGAT 1980
Db 1982 GTGCTGGAGCCAGAACTTCCGAGAGAAAGAGGGCGAGCGTCTACCTGAGGGTG 2041
QY |||||
QY 1981 GTGCTGGAGCCAGAACTTCCGAGAGAAAGAGGGCGAGCGTCTACCTGAGGGTG 2040
Db 2042 AAGGCACTGTTTACGCGGTCAACTACAGAGCGGGCGGGCGCGCGCGCGCGCGCGCGCGCG 2101
QY |||||
QY 2041 AAGGCACTGTTTACGCGGTCAACTACAGAGCGGGCGGGCGCGCGCGCGCGCGCGCGCGCGCG 2100
Db 2102 TCTGTGCTGGGCGCTGAGCAATATCAGAGGCGCTGGCGCACTTCTGTGCTGTGCTGTGCTGTG 2161
QY |||||
QY 2101 TCTGTGCTGGGCGCTGAGCAATATCAGAGGCGCTGGCGCACTTCTGTGCTGTGCTGTGCTGTG 2160
Db 2162 GCCAGGAGCCCGCGCGCTGAGCTGTACTTGTGCAAGTGTGATGAGGGCGCTGAGAG 2221
QY |||||
QY 2161 GCCAGGAGCCCGCGCGCTGAGCTGTACTTGTGCAAGTGTGATGAGGGCGCTGAGAG 2220
Db 2222 ACCATCCCGCAGAGAGGCTCAGAGGAGTATGCGCAGCATCTTCAAAACCCAGAAACAG 2281
QY |||||
QY 2221 ACCATCCCGCAGAGAGGCTCAGAGGAGTATGCGCAGCATCTTCAAAACCCAGAAACAG 2280
Db 2282 TACTGCTGCGGTGATGCGGTGTGTCAGAAAGCGCGCCATGGGACGTCGCAAGGCC 2341
QY |||||
QY 2281 TACTGCTGCGGTGATGCGGTGTGTCAGAAAGCGCGCCATGGGACGTCGCAAGGCC 2340
Db 2342 TTCAAGAGCCAGTGTCTTACTTACAGACCTCAGCGCTTACTATGCAAGTGTGCTGCT 2401
QY |||||
QY 2341 TTCAAGAGCCAGTGTCTTACTTACAGACCTCAGCGCTTACTATGCAAGTGTGCTGCT 2400
Db 2402 CACTGTGAGAGAGCAGCGCGCTGAGGAGTATGCGGTGTCATGAGAGAGCTCTCCCTG 2461
QY |||||
QY 2401 CACTGTGAGAGAGCAGCGCGCTGAGGAGTATGCGGTGTCATGAGAGAGCTCTCCCTG 2460
Db 2462 AATGAGGCGCAGAGTGGCTCTTTCAGACGTTTCTTCAAGCTTATGTGCCACAGCGCGTG 2521
QY |||||
QY 2461 AATGAGGCGCAGAGTGGCTCTTTCAGACGTTTCTTCAAGCTTATGTGCCACAGCGCGTG 2520
Db 2522 CGCATCAGGGGCAAGTCTTACGTTCAGTGTGCAAGGGATCCCGAGGGCTTCAATCTCTCC 2581
QY |||||
QY 2521 CGCATCAGGGGCAAGTCTTACGTTCAGTGTGCAAGGGATCCCGAGGGCTTCAATCTCTCC 2580
Db 2582 ACGTGTGTGCAAGCTGTGTCTACGGGAGATGAGAGCAAGCTGTTTGGGGGATTCGG 2641
QY |||||

[illegible]

D	b	1438	GCGGACAGAGAGCGCGGGGGCAGTGCACAGCCGAATCTGCCGTGTGCCAAGAGGCCAG	1497
O	y	723	GGGGTCACAGAGAGGGCGGGGGCAGTGCCACAGCCCAATTCTGCCGTGTGCCAAGAGGCCAG	782
D	b	1498	GCGTGGCGCTGCCCTCTAGCGCGGAGGCGAGCGCCGTGTGGGACGGGGTCTCTGGGCCACC	1557
O	y	783	GCGTGGCGCTGCCCTCTAGCGCGGAGGCGAGCGCCGTGTGGGACGGGGTCTCTGGGCCACC	842
D	b	1558	GGGCGAGAACCGGTGAGACCGATGACCGTGTCTGTGTGTGTCACTCGCACACCCGC	1617
O	y	843	GGGCGAGAACCGGTGAGACCGATGACCGTGTCTGTGTGTGTGTCACTCGCACACCCGC	902
D	b	1618	CGAAGAAGCACACTCTTTGGAAGGGTGGGCTCTGTGGACAGGCGCACTGCCACCATCCGT	1677
O	y	903	CGAAGAAGCACACTCTTTGGAAGGGTGGGCTCTGTGGACAGGCGCACTGCCACCATCCGT	962
D	b	1678	GGGCGCGCACAGCACCGCGGGGCCCCCCATCCACATCGCGGCGCACACGCTCTGGGACAC	1737
O	y	963	GGGCGCGCACAGCACCGCGGGGCCCCCCATCCACATCGCGGCGCACACGCTCTGGGACAC	10222
D	b	1738	GCGTGTGTCCCCTGGTGTAGCGCGGAGACAAAGACCTTCTACTCTCACTCTCAAGGAGAAAGA	1797
O	y	1023	GCGTGTGTCCCCTGGTGTAGCGCGGAGACAAAGACCTTCTACTCTCACTCTCAAGGAGAAAGA	10822
D	b	1798	GCACTCGCGGCGCTCTCTCTACTACTACTCTGTGAGAGCCGACCTGACGTGGCGCTCGAG	1857
O	y	1083	GCACTCGCGGCGCTCTCTCTACTACTACTCTGTGAGAGCCGACCTGACGTGGCGCTCGAG	11422
D	b	1858	GCTGTGTGGAACCATCTTCTGTGGGTTCAGAGCCCTTGATGCCAGAGGACTCCCGCGAGTT	1917
O	y	1143	GCTGTGTGGAACCATCTTCTGTGGGTTCAGAGCCCTTGATGCCAGAGGACTCCCGCGAGTT	12022
D	b	* 1918	GCCCCGCTGCCCGCAGCGCTACTGTGGCAAATGCGGGCCCTGTCTTGAGACTCTTGSGAA	1977
O	y	1203	GCCCCGCTGCCCGCAGCGCTACTGTGGCAAATGCGGGCCCTGTCTTGAGACTCTTGSGAA	1262
D	b	1978	CCACGCGCAGTGCCTTACGGGGTGCTCTCAAGACGACTGCCGCTGCGAGCTGCGGT	2037
O	y	1263	CCACGCGCAGTGCCTTACGGGGTGCTCTCAAGACGACTGCCGCTGCGAGCTGCGGT	13222
D	b	2038	CACCCACAGACGGGTGTCGTGCGCGGGAGAAAGCCGAGGGCTGTGTGGCGGCCCCCGA	2097
O	y	1323	CACCCACAGACGGGTGTCGTGCGCGGGAGAAAGCCGAGGGCTGTGTGGCGGCCCCCGA	13822
D	b	2098	GGAAGAGACACAGACCCCGCTGCGCTGTGTGACGTCTCCGACACAGCAGCAGCCCTG	2157
O	y	1383	GGAAGAGACACACAGACCCCGCTGCGCTGTGTGACGTCTCCGACACAGCAGCAGCCCTG	14422
D	b	2158	GCAAGTGTAGCGGCTTGTGTGGGGCTGTGCGCGCGCGGCTGTGGCCCCAGGGCTGTGGGG	2217
O	y	1443	GCAAGTGTAGCGGCTTGTGTGGGGCTGTGCGCGCGCGGCTGTGGCCCCAGGGCTGTGGGG	15022
D	b	2218	CTCCAGGACACAAGACGCCGCTTCTCTACAGGAACACAGAAGTTCAATCTCCCTGGGAA	2277
O	y	1503	CTCCAGGACACAAGACGCCGCTTCTCTACAGGAACACAGAAGTTCAATCTCCCTGGGAA	15522
D	b	2278	GCAATGCCAAGCTCTCGCTGCAAGAGCTGACGTGGAAGATGAGCGTGCGGGACTGCGCTTG	2337
O	y	1563	GCAATGCCAAGCTCTCGCTGCAAGAGCTGACGTGGAAGATGAGCGTGCGGGACTGCGCTTG	16222
D	b	2338	GCTGCGAGAGAGCCACAGGGGTGGGTGTGTCCGGCGGAGAGACCGGTGCTCGTAGGA	2397
O	y	1623	GCTGCGAGAGAGCCACAGGGGTGGGTGTGTCCGGCGGAGAGACCGGTGCTCGTAGGA	16822
D	b	2398	GATCCTGGCCAAGTTCTCTGCACTGTGATGATGTGTATGCTGCTGAGCTCTAGATC	2457
O	y	1683	GATCCTGGCCAAGTTCTCTGCACTGTGATGATGTGTATGCTGCTGAGCTCTAGATC	17422
D	b	2458	TTTCTTTTAATGTACAGGAGACCAAGTTTCAAAAAGAACAGGCTCTTTTTCTACCGAAG	2517
O	y	1743	TTTCTTTTAATGTACAGGAGACCAAGTTTCAAAAAGAACAGGCTCTTTTTCTACCGAAG	18022

D	2518	TGTCGTGAGCAAGTGTCCAAAGCAATTGGATTCAGACAGCACTTGAAGAGAGGTGTACAGTCG	25177
O	1803	TGTCGTGAGCAAGTGTCCAAAGCAATTGGATTCAGACAGCACTTGAAGAGAGGTGTACAGTCG	1862
D	2578	GGACCTGTCCGAAGCAGAGAGTGTAGCGAGCATGTGGGAAGCCAGAGCCCGGCTGTACATGTC	26378
O	1863	GGACCTGTCCGAAGCAGAGAGTGTAGCGAGCATGTGGGAAGCCAGAGCCCGGCTGTACATGTC	19222
D	2658	CAGACTCCGCTTCAATCCCCAAGCCTGTACGGGCTGTGGGCCGATTTGTGAACATGTGACTACT	2657
O	1923	CAGACTCCGCTTCAATCCCCAAGCCTGTACGGGCTGTGGGCCGATTTGTGAACATGTGACTACT	1982
D	2698	CGTGGAGGCCAGAAAGCTTCCGCGAGAGAAAAAGAGGGCCGAGCGTCCACCTGTGAGGTGTAA	2757
O	1983	CGTGGAGGCCAGAAAGCTTCCGCGAGAGAAAAAGAGGGCCGAGCGTCCACCTGTGAGGTGTAA	2042
D	2758	GGCACTGTTCAGCGTGTCTCACTACGAGCGGGCGGGCCGCCCGGCGCTCTGTGGCGCTC	2817
O	2043	GGCACTGTTCAGCGTGTCTCACTACGAGCGGGCGGGCCGCCCGGCGCTCTGTGGCGCTC	2102
D	2818	TGTGCTGGGCGCTGTGAGCATATCCACAGGGGCTGTGGGCACCTTGTGTGTGTGTGTGGG	2877
O	2103	TGTGCTGGGCGCTGTGAGCATATCCACAGGGGCTGTGGGCACCTTGTGTGTGTGTGTGGG	2162
D	2878	CCAGAGACCCCGCGCTGTAGGCTGTACTTTTTCAGAGTGTGTGACAGGGCGGCTGACAGAC	2937
O	2163	CCAGAGACCCCGCGCTGTAGGCTGTACTTTTTCAGAGTGTGTGACAGGGCGGCTGACAGAC	2222
D	2938	CATCCCCCAGAGACAGGCTCACAGAGGTCAATCCGCAACATATCAAAACCCAGAACAGTA	2997
O	2223	CATCCCCCAGAGACAGGCTCACAGAGGTCAATCCGCAACATATCAAAACCCAGAACAGTA	2282
D	2998	CTGCGT	3057
O	2283	CTGCGT	2342
D	3058	CAGAGCCACGCTCTTACCTTGTACAGACCTCCAGCCGTCATATGACAGCAATGTGTGTGTCA	3117
O	2343	CAGAGCCACGCTCTTACCTTGTACAGACCTCCAGCCGTCATATGACAGCAATGTGTGTGTCA	2402
D	3118	CGTGTGAGAGAACACGCGCGGTGTGGGATGTGCGTCATATGAGAGAGAGTCTCTCCGTAA	3177
O	2403	CGTGTGAGAGAACACGCGCGGTGTGGGATGTGCGTCATATGAGAGAGAGTCTCTCCGTAA	2462
D	3178	TGAGGCCAGCAGTGTGCTTGTGACATCTTCTTACGCTTTCAGTGTCCACAGCAGCGCGTGTG	3237
O	2463	TGAGGCCAGCAGTGTGCTTGTGACATCTTCTTACGCTTTCAGTGTCCACAGCAGCGCGTGTG	2522
D	3238	CATAGGGGGAAGTCTTCACTACGTGTCCAGTGTCCAGAGGATCCCGCAGGGGCTCATCTCTCAC	3297
O	2523	CATAGGGGGAAGTCTTCACTACGTGTCCAGTGTCCAGAGGATCCCGCAGGGGCTCATCTCTCAC	2582
D	3298	GCTGTCTGTGAGCTGTGTGACAGGCAACATGTGAAGAAACAAGTGTGTGGGGATTCGGCG	3357
O	2583	GCTGTCTGTGAGCTGTGTGACAGGCAACATGTGAAGAAACAAGTGTGTGGGGATTCGGCG	2642
D	3358	GGACGGGCTGTCTGTGCGTTTGTGTGATATTTCTTGTGTGTGTGTGTGTGTGTGTGTGTGT	3417
O	2643	GGACGGGCTGTCTGTGCGTTTGTGTGATATTTCTTGTGTGTGTGTGTGTGTGTGTGTGTGT	2702
D	3418	CGCAGAAACCTTCTGTGAGACCTGTGTGAGAGTGTCTGTGTGTGTGTGTGTGTGTGTGTGT	3477
O	2703	CGCAGAAACCTTCTGTGAGACCTGTGTGAGAGTGTCTGTGTGTGTGTGTGTGTGTGTGTGT	2742
D	3478	CTTGTGGAAGACAGTGTGTGAACTTCTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	3537
O	2763	CTTGTGGAAGACAGTGTGTGAACTTCTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	2822
D	3538	TGTTCAATGCTGGGCGGCGGCTAT 3563	
O	2823	TGTTCAATGCTGGGCGGCGGCTAT 2848	

Qy	963	GGGCGCCGACAGACACGCGGGGGCCCCCATCCATGCATGTGGGGCCACACAGCTCCCTGGGACAC	1022
Db	1738	GCCTGTTCCTCCCGGTGTGAGCCCGAGACCAAGCACTTCTCTACTCCTCGAGCGACAGAA	1797
Qy	1023	GCTTGTTCCTCCCGGTGTGAGCCCGAGACCAAGCACTTCTCTACTCCTCGAGCGACAGAA	1082
Db	1798	GCAGTGGGGGCCCCCTTCCCTACTCAAGCTCTCGAGGGCCACACTGACGTGGGGGCTCGGAG	1857
Qy	1083	GCAGCTGGGGGCCCCCTTCCCTACTCAAGCTCTCGAGGGCCACACTGACGTGGGGGCTCGGAG	1142
Db	1858	GCTCGTGGAGACCATCTTTCTTGGGGTTCCAGGCCCTGGATGCCAGGAGACTCCCGCAGGTT	1917
Qy	1143	GCTCGTGGAGACCATCTTTCTTGGGGTTCCAGGCCCTGGATGCCAGGAGACTCCCGCAGGTT	1202
Db	1918	GGCCCCGCTGCCCCAGGGGCTACAGAAATGGGGGCCCCGTTCTTGAGAGCTTTGGGAA	1977
Qy	1203	GGCCCCGCTGCCCCAGGGGCTACAGAAATGGGGGCCCCGTTCTTGAGAGCTTTGGGAA	1262
Db	1978	CCAGCGCAGTGGCCCTTACGCGGGGTGCTCTCTCAAGACGCACTCCCGCTCGAGCTGCGGT	2037
Qy	1263	CCAGCGCAGTGGCCCTTACGCGGGGTGCTCTCTCAAGACGCACTCCCGCTCGAGCTGCGGT	1322
Db	2038	CACCCCAAGCAGCGGTGTCTGTGCCCCGGGAGAAAGCCCAAGGGCTCTGTGGCGCCCCGA	2097
Qy	1333	CACCCCAAGCAGCGGTGTCTGTGCCCCGGGAGAAAGCCCAAGGGCTCTGTGGCGCCCCGA	1382
Db	2098	GGAGAGAGACACAAACCCCGCTCGCGTGGAGCTGCTGCCCGCAGACAGAGCCCGCTG	2157
Qy	1383	GGAGAGAGACACAAACCCCGCTCGCGTGGAGCTGCTGCCCGCAGACAGAGCCCGCTG	1442
Db	2158	GCAGGTGACGGCTTGTGTGCGGGGCTGCTCGCGCGGGCTGTGTGCCCCAGCGCTCTGGGG	2217
Qy	1443	GCAGGTGACGGCTTGTGTGCGGGGCTGCTCGCGCGGGCTGTGTGCCCCAGCGCTCTGGGG	1502
Db	2218	CTCCAGGACACAAACGCGGCTCTCTCCACAGAACACCAAGAAATTTCATCTCCCTGGGAA	2277
Qy	1503	CTCCAGGACACAAACGCGGCTCTCTCCACAGAACACCAAGAAATTTCATCTCCCTGGGAA	1562
Db	2278	GCATGCCAAGCTCTCGCTGAGAGAGCTGAGTGGAAATGAGCGTGGCGGACTGCGCTTG	2337
Qy	1563	GCATGCCAAGCTCTCGCTGAGAGAGCTGAGTGGAAATGAGCGTGGCGGACTGCGCTTG	1622
Db	2338	GCTGGCGAGAGCCCGAGGGGTGGCTGTGTCCGGCGCCAGAGACACCGTCCCGTGAAGA	2397
Qy	1623	GCTGGCGAGAGCCCGAGGGGTGGCTGTGTCCGGCGCCAGAGACACCGTCCCGTGAAGA	1682
Db	2398	GATCCTGGCAGATTCTGTGACTGGCTGATGATGTGTATGTAAGTGTGACAGCTGCTAGTCT	2457
Qy	1683	GATCCTGGCAGATTCTGTGACTGGCTGATGATGTGTATGTAAGTGTGACAGCTGCTAGTCT	1742
Db	2458	TTTCTTTTATGTCAACGAGACACAGTTCAAAAGAACAGGCTCTTTTCTACCGGAGAG	2517
Qy	1743	TTTCTTTTATGTCAACGAGACACAGTTCAAAAGAACAGGCTCTTTTCTACCGGAGAG	1802
Db	2518	TGTCTGGAGCAAGTTGGAAAGCATTTGAAATCAGACAGCTTGAAGAGGGTCCACACTCG	2577
Qy	1803	TGTCTGGAGCAAGTTGGAAAGCATTTGAAATCAGACAGCTTGAAGAGGGTCCACACTCG	1862
Db	2578	GGAGCTGTGGAAGCAGAGGTGACAGGCAAGTCGGGAAGCCAGGCCCGCTCTGACTGCTC	2637
Qy	1863	GGAGCTGTGGAAGCAGAGGTGACAGGCAAGTCGGGAAGCCAGGCCCGCTCTGACTGCTC	1922
Db	2638	CAGACTCGGTTATCTCCCAAGCTGTACGGGGTGCGGCGGATTTGAAATGAGTACTAGT	2697
Qy	1923	CAGACTCGGTTATCTCCCAAGCTGTACGGGGTGCGGCGGATTTGAAATGAGTACTAGT	1982
Db	2698	CGTGGAGCCGAAAGCTTCCGAGAGAAAAGAGAGGGCGAGAGCTCTACCTCTCAGAGGTGAA	2757
Qy	1983	CGTGGAGCCGAAAGCTTCCGAGAGAAAAGAGAGGGCGAGAGCTCTACCTCTCAGAGGTGAA	2042
Db	2758	GGCACTGTTCAGGCTGCTCAACTACAGCGGGGCGGGCGCCCGGCTCTGTGGCGCTC	2817
Qy	2043	GGCACTGTTCAGGCTGCTCAACTACAGCGGGGCGGGCGCCCGGCTCTGTGGCGCTC	2102

D	b	2818	TGTGCTGGGCGCTGGACGATATCCACAGGGCGCTGGCGACACTTGTGTGCTGTGTGGGGC	2877
Q	y	2103	TGTGTGGGCTTGGACGATATCCACAGGGCGCTGGCGACCTTGTGTGCTGTGTGGGGC	2162
D	b	2878	CCAGGACCCCGCGCTGAGCTGTACTTGTTCGAAGTGTGTGACGGCGCGTACGACAC	2937
Q	y	2163	CCAGGACCCCGCGCTGAGCTGTACTTGTTCGAAGTGTGTGACGGCGCGTACGACAC	2222
D	b	2938	CATCCCCAGGACAGGCTCACGGAGTTCATCGCCAGCATCATCAAAACCCAGAACAGTA	2997
Q	y	2223	CATCCCCAGGACAGGCTCACGGAGTTCATCGCCAGCATCATCAAAACCCAGAACAGTA	2282
D	b	2998	CTGGGTGGTGGGATGATCGGTGGTCCAGAAAGGCGCCCATGGGCGAGTCCGCAAGGCGTT	3057
Q	y	2283	CTGGGTGGTGGGATGATCGGTGGTCCAGAAAGGCGCCCATGGGCGAGTCCGCAAGGCGTT	2342
D	b	3058	CAAGAGCCACGCTCTCTACTTGAAGAGACCTCCAGCCGTATCATCGACAGTTCGTGGCTCA	3117
Q	y	2343	CAAGAGCCACGCTCTCTACTTGAAGAGACCTCCAGCCGTATCATCGACAGTTCGTGGCTCA	2402
D	b	3118	CCTGCAGAGAACCAAGCCCGCTGAGGGATGCCCGTGTCTATCGAGCAGAGCTCTCCCTGAA	3177
Q	y	2403	CCTGCAGAGAGAACCAAGCCCGCTGAGGGATGCCCGTGTCTATCGAGCAGAGCTCTCCCTGAA	2462
D	b	3178	TGAGGCCAGAGATGGGCGCTTCTGCAGCGATCTCTACGCTTCATGTGGCCACAGCGCGTGGG	3237
Q	y	2463	TGAGGCCAGAGATGGGCGCTTCTGCAGCGATCTCTACGCTTCATGTGGCCACAGCGCGTGGG	2522
D	b	3238	CATCAGGGGCAAGTCTTACGTCCACGTCCACAGGGGATCCCGCAGGGCTCCATCCTCTCCAC	3297
Q	y	2523	CATCAGGGGCAAGTCTTACGTCCACGTCCACAGGGGATCCCGCAGGGCTCCATCCTCTCCAC	2582
D	b	3298	GCTGCTCTGCAGCGCTGTGTCTACGGCGACATGTGAGAACAACTGTTTGCGGGGATTGGGG	3357
Q	y	2583	GCTGCTCTGCAGCGCTGTGTCTACGGCGACATGTGAGAACAACTGTTTGCGGGGATTGGGG	2642
D	b	3358	GGAGCGGGTGTGCTCCTGGCGTTTGGTGAATGATTTCTTGTGTGACACCTTACCTCACCCA	3417
Q	y	2643	GGAGCGGGTGTGCTCCTGGCGTTTGGTGAATGATTTCTTGTGTGACACCTTACCTCACCCA	2702
D	b	3418	CGCGAAAACTTCTCTACAGGACCTGTGTCCGAGGTGTCCCTGAGTATGAGCTGCGTGTGAA	3477
Q	y	2703	CGCGAAAACTTCTCTACAGGACCTGTGTCCGAGGTGTCCCTGAGTATGAGCTGCGTGTGAA	2762
D	b	3478	CTTGGCGGAAGACAGTGTGAACTTCCCTGTGAAGAGACGAGGCCCTGGGTGGCACGGCTTT	3537
Q	y	2763	CTTGGCGGAAGACAGTGTGAACTTCCCTGTGAAGAGACGAGGCCCTGGGTGGCACGGCTTT	2822
D	b	3538	TGTTTCAGATGCCGGGCCACGGGCTTAT 3563	
Q	y	2823	TGTTTCAGATGCCGGGCCACGGGCTTAT 2848	
RESULT 5				
ID			PCT-US99-07160-1 STANDARD; DNA; UNC; 4015 BP.	
AC			xxxxxx	
DT			Sequence 1, Application PC/TUS9907160	
DE			Sequence 1, Application PC/TUS9907160	
CC			GENERAL INFORMATION:	
CC			APPLICANT: Cech, Thomas R.	
CC			APPLICANT: Lingner, Joachim	
CC			APPLICANT: Nakamura, Toru	
CC			APPLICANT: Chapman, Karen B.	
CC			APPLICANT: Morin, Gregg B.	
CC			APPLICANT: Harley, Calvin B.	
CC			APPLICANT: Andrews, William H.	
CC			APPLICANT: Genon Corporation	
CC			APPLICANT: University Technology Corporation	
CC			TITLE OF INVENTION: Antisense Compositions for Detecting and Inhibiting	
CC			TITLE OF INVENTION: Telomerase Reverse Transcriptase	
CC			FILE REFERENCE: 015389-003610PC	

Query Match	99.6%	Score 2837	DB 57	Length 4015
Best Local Similarity 100.0%	Fred	No. 0.00e+00		
Matches 2837	Conservative	0	Mismatches 0	Indels 0
			Gaps	0
Db	1 GCAGGCGTCTCTCTGTGCGCACAGTGGGAAGCCCTGACCCCGGCGACACCCCGGAGTCC	60		
Qy	12 GCAGGCGTCTCTCTGTGCGCACAGTGGGAAGCCCTGACCCCGGCGACACCCCGGAGTCC	71		
Db	61 GCGGCTCCCCGCGTGGCGAGCCGTGCGCTCCCTGCTGCGACGACCACTACCGCGAGTGT	120		
Qy	72 GCGGCTCCCCGCGTGGCGAGCCGTGCGCTCCCTGCTGCGACGACCACTACCGCGAGTGT	121		
Db	121 GCGGCTGGCCAGTTCGTGCGGCGGCGCTGAGGACCCAGAGGCGGCGGTGGTGGCGAGCGG	180		
Qy	132 GCGGCTGGCCAGTTCGTGCGGCGGCGCTGAGGACCCAGAGGCGGCGGTGGTGGCGAGCGG	191		
Db	131 GGACCCGGCGGCTTTCGCGCGCTGTGTGGCCCACTGTGCTGTGCGCTTGGAGCG	240		
Qy	192 GGACCCGGCGGCTTTCGCGCGCTGTGTGGCCCACTGTGCTGTGCGCTTGGAGCG	251		
Db	241 ACGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	300		
Qy	252 ACGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	311		
Db	301 CCGAGTGTGCGAGAGGCTGTGTGGAAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	360		
Qy	312 CCGAGTGTGCGAGAGGCTGTGTGGAAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	371		
Db	361 GCTGTGAGACGGGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	420		
Qy	372 GCTGTGAGACGGGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	431		
Db	421 CTGTGCCAACACAGGTGACCGACGACTGTGGGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGG	480		

[illegible]

D	b	181	GGACCCGGCGGCTTTCCGCGCGCTGTGTGGCCAGTGCCTGTGTGCGTCCCTGGAGCGC	240
O	y	192	GGACCCGGCGGCTTTCCGCGCGCGCTGTGTGGCCAGTGCCTGTGTGCGTCCCTGGAGCGC	251
D	b	241	ACGGCGCGCCCCCGCGCGCCCTCTTCCGCGAGGTCTCGCTGAAAGAGCTGGTGGC	300
O	y	252	ACGGCGCGCCCCCGCGCGCCCTCTTCCGCGAGGTCTCGCTGAAAGAGCTGGTGGC	311
D	b	301	CCGAGTGTGCAGAGGCTGTGTGAGCGCGCGCGCGAAGAGTGTCTGTGGCTTCGGCTTCG	360
O	y	312	CCGAGTGTGCAGAGGCTGTGTGAGCGCGCGCGCGAAGAGTGTCTGTGGCTTCGGCTTCG	371
D	b	361	GCTGTGGACGGGGCCCGCGGGGGGGCCCCCGAGGCGCTTACACACAGCGTGGCGAGCTA	420
O	y	372	GCTGTGGACGGGGCCCGCGGGGGGGCCCCCGAGGCGCTTACACACAGCGTGGCGAGCTA	431
D	b	421	CCTGCCAACAACGGTGTGACCCAGCACTGTGCGGGAGCGGGGGCGTGGGGGCTGTCTGTGG	480
O	y	432	CCTGCCAACAACGGTGTGACCCAGCACTGTGCGGGAGCGGGGGCGTGGGGGCTGTCTGTGG	491
D	b	481	CCGGTGGGGCCAGCACTGTGTGTGTTCACCTGTGTGGACGCTGGCGGCTCTTTGTGTGT	540
O	y	492	CCGGTGGGGCCAGCACTGTGTGTGTTCACCTGTGTGGACGCTGGCGGCTCTTTGTGTGT	551
D	b	541	GGCTCCACAGCTGTGCGCTTACACAGGTGTGTGCGGGCGCGCGCTTACAGTGTGCGCTCCAC	600
O	y	552	GGCTCCACAGCTGTGCGCTTACACAGGTGTGTGCGGGCGCGCGCTTACAGTGTGCGCTCCAC	611
D	b	601	TCAGGCCCGCGCCCCCGCCACACGCTAGTGTGAACCCCGAAGGCGTGTGGGATGTCAACAGGCG	660
O	y	612	TCAGGCCCGCGCCCCCGCCACACGCTAGTGTGAACCCCGAAGGCGTGTGGGATGTCAACAGGCG	671
D	b	661	CTGGAACCATATGCGCTGACAGGGAGCGCGGGGTCCCTGTGGGCTGCGACGCCCGGGTGCAG	720
O	y	672	CTGGAACCATATGCGCTGACAGGGAGCGCGGGGTCCCTGTGGGCTGCGACGCCCGGGTGCAG	731
D	b	721	GAGGCGCGGGGCGAGTGCACCGCAGATCTTGCCTTGCACCAAGAGGCCACAGGCGTGGCGC	780
O	y	732	GAGGCGCGGGGCGAGTGCACCGCAGATCTTGCCTTGCACCAAGAGGCCACAGGCGTGGCGC	791
D	b	781	TGCCCCGTGAGCGCGAGGAGGCGAGCGCCGTTGGCGAAGGGTCTGTGGGCCACCCCGGGCAGAGAC	840
O	y	792	TGCCCCGTGAGCGCGAGGAGGCGAGCGCCGTTGGCGAAGGGTCTGTGGGCCACCCCGGGCAGAGAC	851
D	b	841	GCGTGGACCGAGTACCGGTGTCTGTGTGTGTACCTGTGCAGACCCGCCAACAAGC	900
O	y	852	GCGTGGACCGAGTACCGGTGTCTGTGTGTGTACCTGTGCAGACCCGCCAACAAGC	911
D	b	901	CACCTCTTTGAGAGGTGTGCGCTCTGTGCACGCGCACTCCACCCATCCGTGGGGCCGCA	960
O	y	912	CACCTCTTTGAGAGGTGTGCGCTCTGTGCACGCGCACTCCACCCATCCGTGGGGCCGCA	971
D	b	961	GCACACAGCGGGCCCCCATCCATATGGGGCCACACAGTCCCTGGGAGACGCTTGTCC	1020
O	y	972	GCACACAGCGGGCCCCCATCCATATGGGGCCACACAGTCCCTGGGAGACGCTTGTCC	1030
D	b	1021	CCCGGTGTAGCGCGAGACCAAGCACTCTCTACTCTCTAGGGGACAAAGAGAGCACTGTGG	1080
O	y	1032	CCCGGTGTAGCGCGAGACCAAGCACTCTCTACTCTCTAGGGGACAAAGAGAGCACTGTGG	1090
D	b	1081	GCCCTCTTCTACTACAGCTCTGTGAGGGCCAGCTATAGTGGGCTGTGAAGGCTGTGTGA	1140
O	y	1092	GCCCTCTTCTACTACAGCTCTGTGAGGGCCAGCTATAGTGGGCTGTGAAGGCTGTGTGA	1150
D	b	1141	GACCATCTTTCTGGGTTCAGAGCCCTGGATGTCCAGAGGACTCCCGCAGGTGTGCCCGGCT	1200
O	y	1152	GACCATCTTTCTGGGTTCAGAGCCCTGGATGTCCAGAGGACTCCCGCAGGTGTGCCCGGCT	1210
D	b	1201	GCCCCAGCGCTACTGTGGCAATGTGGGCCCTGTGTCTGTGAGCTGTGTGGAAACACAGCGCA	1260
O	y	1212	GCCCCAGCGCTACTGTGGCAATGTGGGCCCTGTGTCTGTGAGCTGTGTGGAAACACAGCGCA	1270

D	1261	GTGCCCCAGAGGGGTGCTCTCTCAAGACGACTGCCGTGCGAGCTGGGGTACCCAGC	1320
Q	1272	GTGCCCCAGAGGGGTGCTCTCTCAAGACGACTGCCGTGCGAGCTGGGGTACCCAGC	1331
D	1321	AGCCGGTGTGTGTCCCGGGGAGAGGCCCAAGGGCTGTGGGGGGCCCCGAGAGGAGGA	1380
Q	1332	AGCCGGTGTGTGTCCCGGGGAGAGGCCCAAGGGCTGTGGGGGGCCCCGAGAGGAGGA	1391
D	1381	CACAGACCCCCGCTGTGCTGTGCGAGCTGTCCGCCAGCACACAGCCCCCTGGCAGTGA	1440
Q	1392	CACAGACCCCCGCTGTGCTGTGCGAGCTGTCCGCCAGCACACAGCCCCCTGGCAGTGA	1451
D	1441	CGGCTGTGTGCGGGCTGTGCTGTGCGGGCGGTGGTCCCCAGGCTCTGTGGGCTCCAGCA	1500
Q	1452	CGGCTGTGTGCGGGCTGTGCTGTGCGGGCGGTGGTCCCCAGGCTCTGTGGGCTCCAGCA	1511
D	1501	CAAGAAAGCCGCTCTCTCAGGAACCAAGAAAGTTCATCTCCGTGGGGAAAGCATGCCAA	1560
Q	1512	CAAGAAAGCCGCTCTCTCAGGAACCAAGAAAGTTCATCTCCGTGGGGAAAGCATGCCAA	1571
D	1561	GCTCTCGCTGAGAGAGCTGACGTGGAAGATGAGCCGTGCGGAGCTGCGTTGGCTCCGAG	1620
Q	1572	GCTCTCGCTGAGAGAGCTGACGTGGAAGATGAGCCGTGCGGAGCTGCGTTGGCTCCGAG	1631
D	1621	GAGCCCAAGGGTGGCTGTCTCCGGCCGAGAGCACGCTGTGCTGAGAGAGATCTGGC	1680
Q	1632	GAGCCCAAGGGTGGCTGTCTCCGGCCGAGAGCACGCTGTGCTGAGAGAGATCTGGC	1691
D	1681	CAAGTTCCTGCACTGGCTGATGAGTGTATACGTGCTGAGAGCTGCTCAGGTCTTTCTTTA	1740
Q	1692	CAAGTTCCTGCACTGGCTGATGAGTGTATACGTGCTGAGAGCTGCTCAGGTCTTTCTTTA	1751
D	1741	TGTCAAGGAGACCAAGTTCAAAAGAAACAGGCTCTTTTCTACCGGAAGAGTCTGAG	1800
Q	1752	TGTCAAGGAGACCAAGTTCAAAAGAAACAGGCTCTTTTCTACCGGAAGAGTCTGAG	1811
D	1801	CAAGTTCAAAAGCTTGGAAATCAGACAGCACTTGAAGAGGTGTGACGTGCGGAGCTGT	1860
Q	1812	CAAGTTCAAAAGCTTGGAAATCAGACAGCACTTGAAGAGGTGTGACGTGCGGAGCTGT	1871
D	1861	GGAGCAGAGGTCAAGCAGCATATGGGGAACCGAGCCCGCTGTGAGAGTCCAGACTCG	1920
Q	1872	GGAGCAGAGGTCAAGCAGCATATGGGGAACCGAGCCCGCTGTGAGAGTCCAGACTCG	1931
D	1921	CTTCATCCCCCAAGCTCAGCGGCTGTGGGCCGAGTGTGAACATGAGACTACGTGTGGAGC	1980
Q	1932	CTTCATCCCCCAAGCTCAGCGGCTGTGGGCCGAGTGTGAACATGAGACTACGTGTGGAGC	1991
D	1981	CAGAACGTTCCGAGAGAAAAAGAGGGCCAGGCTCTCACCTCGAGAGGTGAAGGCACTGT	2040
Q	1992	CAGAACGTTCCGAGAGAAAAAGAGGGCCAGGCTCTCACCTCGAGAGGTGAAGGCACTGT	2051
D	2041	CAGGCTGCTCACTACGAGCGGGGCCGGGCCGCCGCTCTGTGGCGCTCTGTGTGGG	2100
Q	2052	CAGGCTGCTCACTACGAGCGGGGCCGGGCCGCCGCTCTGTGGCGCTCTGTGTGGG	2111
D	2101	CCTGAGAGATATCCACAGGGGCTGTGGGGCACTTCGTGCTGGGTGTGGGGCCAGAGACC	2160
Q	2112	CCTGAGAGATATCCACAGGGGCTGTGGGGCACTTCGTGCTGGGTGTGGGGCCAGAGACC	2171
D	2161	GCCGCTGAGCTGTACTTTTCAAGGTGATGAGAGGGCGGCTACGACACCATCCCCA	2220
Q	2172	GCCGCTGAGCTGTACTTTTCAAGGTGATGAGAGGGCGGCTACGACACCATCCCCA	2231
D	2221	GGACAGGCTCAGGAGGTCTATGGCCAGCATCATCAAAACCCAGAAACAGTACTGGTCG	2280
Q	2232	GGACAGGCTCAGGAGGTCTATGGCCAGCATCATCAAAACCCAGAAACAGTACTGGTCG	2291
D	2281	TCGGTATGCGGTGTCCAGAAAGGCCCCCATGGGCACTGTCCGCAAGGCTTCCAGAGCA	2340
Q	2292	TCGGTATGCGGTGTCCAGAAAGGCCCCCATGGGCACTGTCCGCAAGGCTTCCAGAGCA	2351
D	2341	CGTCTTACCTTGACACACCTTCAGCCGATACATGACACAGTTTGTGGTCACTGTACAGGA	2400

[illegible]

Oy	672	CTGGAAACCATGCGTTCAGGGAGAGCCGGGGTCCCCCTGGGGCTGCCAGCCCGGGTGGCAG	731
Db	721	GAGGCGCGGGGGCAGTGCACAGCCGAAGTCTGGCGTTGCCAAGAGAGCCAGCGCTGGCGC	780
Oy	732	GAGGCGCGGGGGCAGTGCACAGCCGAAGTCTGGCGTTGCCAAGAGAGCCAGCGGGCGC	791
Db	781	TGCCCCCTGAGACCCGAGAGCGACGCCCTTGGGCGAGGGGTCTTGGGCCACCCGGCGAGAGC	840
Oy	792	TGCCCCCTGAGACCCGAGAGGGAGCGCCCTTGGGCGAGGGGTCTTGGGCCACCCGGCGAGAGC	851
Db	841	GCGTGAACCGAAGTACCGCGTGTTCGTGGGGGTACCTGGCAGACCCGGCGAAGAAAGC	900
Oy	852	GCGTGAACCGAAGTACCGCGTGTTCGTGGGGGTACCTGGCAGACCCGGCGAAGAAAGC	911
Db	901	CACCTCTTGGAGGGGTGCGCTCTCTGGCAGAGCGCCACTCCACCCATCGTGGGGCGCCA	960
Oy	912	CACCTCTTGGAGGGGTGCGCTCTCTGGCAGAGCGCCACTCCACCCATCGTGGGGCGCCA	971
Db	961	GCACACAGCGGGGGCCCCCATTCACATCGGGGCCACACAGTCCCTTGGAGACCGCTTGTCC	1020
Oy	972	GCACACAGCGGGGGCCCCCATTCACATCGGGGCCACACAGTCCCTTGGAGACCGCTTGTCC	1031
Db	1021	CCCGGTGTAGCGCGAGACCAAGACACTTCCCTACTCTGTAGGCGGACAAGAGAGCACTGCG	1080
Oy	1032	CCCGGTGTAGCGCGAGACCAAGACACTTCCCTACTCTGTAGGCGGACAAGAGAGCACTGCG	1091
Db	1081	GCCTCTCTTCTACTACGCTCTCTGAGGGCCAGCCCTGACGTGCGCTCGGAGGCTGTGGA	1140
Oy	1092	GCCTCTCTTCTACTACGCTCTCTGAGGGCCAGCCCTGACGTGCGCTCGGAGGCTGTGGA	1151
Db	1141	GACCATCTTCTGTGGTCTTCAGAGCCCTGGATGCCAGGAGTCCCGCGAGTTGCCCGCCT	1200
Oy	1152	GACCATCTTCTGTGGTCTTCAGAGCCCTGGATGCCAGGAGTCCCGCGAGTTGCCCGCCT	1211
Db	1201	GCCCGACGGGTACTGGCAATGGGGGCCCTGTTTGTGAGTGCCTTGGGAACACAGCGCA	1260
Oy	1212	GCCCGACGGGTACTGGCAATGGGGGCCCTGTTTGTGAGTGCCTTGGGAACACAGCGCA	1271
Db	1261	GTGCCCCCTACGGGGTGTCTCTCAAGACGACACTGCCGTGCAGCTGGGGTACACCCAGC	1320
Oy	1272	GTGCCCCCTACGGGGTGTCTCTCAAGACGACACTGCCGTGCAGCTGGGGTACACCCAGC	1331
Db	1321	AGCGGCTGTGTGCCCCGGGAGAGGCCCAAGGGCTCTGTGGGGGCCCGCGAGAGAGAGA	1380
Oy	1332	AGCGGCTGTGTGCCCCGGGAGAGGCCCAAGGGCTCTGTGGGGGCCCGCGAGAGAGAGA	1391
Db	1381	CACAGACCCCGGTGCGCTGGTGTGACGTGCTCCGCCACAGCACAGCCCTGGCAGGTGA	1440
Oy	1392	CACAGACCCCGGTGCGCTGGTGTGACGTGCTCCGCCACAGCACAGCCCTGGCAGGTGA	1451
Db	1441	CGGGTGTGTGCGGGGCTGCTGTGCGCGGGGTGGGCCCGCCAGGCGCTGTGGGGTCCAGGCA	1500
Oy	1452	CGGGTGTGTGCGGGGCTGCTGTGCGCGGGGTGGGCCCGCCAGGCGCTGTGGGGTCCAGGCA	1511
Db	1501	CAAGCAAGCGCGCTTCTCTCAGAAACACCAAGAATCATCTCCTGGGGAAAGATGCCAA	1560
Oy	1512	CAAGCAAGCGCGCTTCTCTCAGAAACACCAAGAATCATCTCCTGGGGAAAGATGCCAA	1571
Db	1561	GCTCTCGCTGACGAGCTGACGTGAGAAAGATAGCGTGGGGACTGCGCTTGGCTGCGAG	1620
Oy	1572	GCTCTCGCTGACGAGCTGACGTGAGAAAGATAGCGTGGGGACTGCGCTTGGCTGCGAG	1631
Db	1621	GAGCCACAGGGGTGGCGTGTTCGGGCGGAGAGACAGCTGTGGCGTGGAGAGATCTGGC	1680
Oy	1632	GAGCCACAGGGGTGGCGTGTTCGGGCGGAGAGACAGCTGTGGCGTGGAGAGATCTGGC	1691
Db	1681	CAAGTCTCTGCACTGCGTGAATGATGTATCGTCGACAGCTGCTCAGGTCTTTCTTTA	1740
Oy	1692	CAAGTCTCTGCACTGCGTGAATGATGTATCGTCGACAGCTGCTCAGGTCTTTCTTTA	1751
Db	1741	TGTACGGAGACACAGTTTCAAAAGAACAGGCTCTTTTCTAACCGGAAGAGTGTGGAG	1800

QY	1752	TGTCACGAGACACACGTTTCTAAAAAGAACAGCGCTCTTTTCTACCGGAAAGAGTCGTGGAG	1811
Db	1801	CAAGTTGCAAAGACATTTGGAAATCAGACAGCATTTGAAGAGGGGTGACAGCTGCGGAGCTGTC	1860
QY	1812	CAAGTTGCAAAGACATTTGGAAATCAGACAGCACTTTGAAGAGGGGTGACAGCTGCGGAGCTGTC	1871
Db	1861	GGAAACAGAGGTCAAGGCACATGGGGAAAGCCAGGCCCGCCCTGCTGACGTCCAGACTCCG	1920
QY	1872	GGAAACAGAGGTCAAGGCACATGGGGAAAGCCAGGCCCGCCCTGCTGACGTCCAGACTCCG	1931
Db	1921	CTTCATCCCCAAAGCTCAGCGGCTGCGGGCGGATGTGAAATAGACTAGCTAGCTGTGGAGC	1980
QY	1932	CTTCATCCCCAAAGCTCAGCGGCTGCGGGCGGATGTGAAATAGACTAGCTAGCTGTGGAGC	1991
Db	1981	CAGAACGTTCCGCGAGAGAAAAAGAGGGCCGACGCTCACCTCGAGGGGTGAAGCACTGTT	2040
QY	1992	CAGAACGTTCCGCGAGAGAAAAAGAGGGCCGACGCTCACCTCGAGGGGTGAAGCACTGTT	2051
Db	2041	CAGCGTGTCAACTACGAGAGGGGGCGGGGCCCGCCGCTCTGAGGCGCTCTGTGCTGGG	2100
QY	2052	CAGCGTGTCAACTACGAGAGGGGGCGGGGCCCGCCGCTCTGAGGCGCTCTGTGCTGGG	2111
Db	2101	CCTGACACATATCCACAGAGGGGCTGGGCGACCTTCGTCGTCGCGTGGGGGGCCACGAGACC	2160
QY	2112	CCTGACACATATCCACAGAGGGGCTGGGCGACCTTCGTCGTCGCGTGGGGGGCCACGAGACC	2171
Db	2161	GCCGCGCTAGCTGTACTTCTTGTCAAGGTGATGTGACGGGGCGGTAGACACCATCCCCA	2220
QY	2172	GCCGCGCTAGCTGTACTTCTTGTCAAGGTGATGTGACGGGGCGGTAGACACCATCCCCA	2231
Db	2221	GGACAGGCTCAACGAGAGTCATCGCCAGCATATCAAAACCCAGAACAGTACTGCTGCG	2280
QY	2232	GGACAGGCTCAACGAGAGTCATCGCCAGCATATCAAAACCCAGAACAGTACTGCTGCTGCG	2291
Db	2281	TGCGATATCGGTGTCCAGAAAGGGCGCCCATGGGGCACTGCCAAGCGCTTCAAGAGCA	2340
QY	2292	TGCGATATCGGTGTCCAGAAAGGGCGCCCATGGGGCACTGCCAAGCGCTTCAAGAGCA	2351
Db	2341	CGTCTCACTATTGACAGACCTCCAGCCGATAGCAGACAGTTGCGTGCACCTCGACAGAA	2400
QY	2352	CGTCTCACTATTGACAGACCTCCAGCCGATAGCAGACAGTTGCGTGCACCTCGACAGAA	2411
Db	2401	GACACGCGCGCTGAGGGATGCGCTGTCATCAGACAGAGCTCCTCCGTGAATGAGGCCAG	2460
QY	2412	GACACGCGCGCTGAGGGATGCGCGTGTCTCATCAGACAGAGCTCCTCCGTGAATGAGGCCAG	2471
Db	2461	CAGTGGCGCTCTTCACAGCTCTTCTACGCTTCATGTGCCACACAGCGGTGCGATAGAGGG	2520
QY	2472	CAGTGGCGCTCTTCACAGCTCTTCTACGCTTCATGTGCCACACAGCGGTGCGATAGAGGG	2531
Db	2521	CAAGTCCATACGTCAGAGGCCAGGGGATCCCGGAGGGCTCATCTCTCCAGCTCTCTG	2580
QY	2532	CAAGTCCATACGTCAGAGGCCAGGGGATCCCGGAGGGCTCATCTCTCTCCAGCTCTCTG	2591
Db	2581	CAGCGTGTCTACGCGACATGTAGAAACAAGCTGTTGGCGGGATTGCGCGGAGCGGCT	2640
QY	2592	CAGCGTGTCTACGCGCGACATGTAGAAACAAGCTGTTGGCGGGATTGCGCGGAGCGGCT	2651
Db	2641	GCTCTCGCTTGGTGGATGATTTCTTGTGTGACACCTCACCTCACCCAGCGAAAC	2700
QY	2652	GCTCTCGCTTGGTGGATGATTTCTTGTGTGACACCTCACCTCACCCAGCGAAAC	2711
Db	2701	CTTCTCAGAGACCTGATCGAGGTGTCCTTGATGTGGCTGCGGTGATCACTTGCGGA	2760
QY	2712	CTTCTCAGAGACCTGATCGAGGTGTCCTTGATGTGGCTGCGGTGATCACTTGCGGA	2771
Db	2761	GACAGTGTGAACTTCCCTGTAGAAAGCAGAGCGCTGCGTGGCACGGCTTTTGTTCAGAT	2820
QY	2772	GACAGTGTGAACTTCCCTGTAGAAAGCAGAGCGCTGCGTGGCACGGCTTTTGTTCAGAT	2831
Db	2821	GCGGCGCCACGGCTAT 2837	
QY	2832	GCGGCGCCACGGCTAT 2848	

[illegible]

Db	2761	GACAGTGGTGAACCTCCCTGTAGAAAGACGAGCCCTGGTGGACGCGCTTTGTCAAGT	2820
0y	2772	GACAGTGGTGAACCTCCCTGTAGAAAGACGAGCCCTGGTGGACGCGCTTTGTCAAGT	2831
Db	2821	GCCGGCCCGCCGCTAT	2837
0y	2832	GCCGGCCCGCCGCTAT	2848

RESULT 10
ID US-08-912-951-1 STANDARD; DNA: UNC; 4015 BP.
AC xxxxxx

Sequence 1, Application US/08912951
Sequence 1, Application US/08912951
GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC TITLE OF INVENTION: THERAPEUTIC METHODS
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patentin Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,030
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
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CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
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CC APPLICATION NUMBER: US 08/851,843
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CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
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CC FILING DATE: 01-OCT-1996
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002600US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 1:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 4015 base pairs
CC TYPE: nucleic acid

STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 56..3454
OTHER INFORMATION: /product= "htrr"
OTHER INFORMATION: /note= "human telomerase reverse transcriptase (htrr) catalytic protein component"
OTHER INFORMATION: component
SEQUENCE 4015 bp; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.

Query Match 99.6%; Score 2837; DB 44; Length 4015;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 2837; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 GCAGCGCTGCTCTCTGTCGCGACGTGGGAAAGCCCTGGACCCCGGACCCCGCGATGCC 60
Qy 12 GCAGCGCTGCTCTCTGTCGCGACGTGGGAAAGCCCTGGACCCCGGACCCCGCGATGCC 71

Db 61 GCGGCTCCCGCTGCTGCGAGCCGCTGCTCCCTGCTGCGACGCACTACCGGAGTGTCT 120
Qy 72 GCGGCTCCCGCTGCTGCGAGCCGCTGCTCCCTGCTGCGAGCACTACCGGAGTGTCT 131

Db 121 GCGGCTGCGACGTGCTGCGGCGCTGCGGCGCCGAGGCGTGGCGGCTGCTGCGACGCGG 180
Qy 132 GCGGCTGCGACGTGCTGCGGCGCTGCGGCGCCGAGGCGTGGCGGCTGCTGCGACGCGG 191

Db 181 GGACCGGCGGCTTTCGCGGCGCTGCTGCGGCGCAAGTGTGTGTGCTGCTGCGGAGCG 240
Qy 192 GGACCGGCGGCTTTCGCGGCGCTGCTGCGGCGCAAGTGTGTGTGCTGCTGCGGAGCG 251

Db 241 ACGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 300
Qy 252 ACGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 311

Db 301 CCGAGTGTGAGAGAGTGTGTGCGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 360
Qy 312 CCGAGTGTGAGAGAGTGTGTGCGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 371

Db 361 GCTGTGAGAGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 420
Qy 372 GCTGTGAGAGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 431

Db 421 CCTGCGCAACAGGTGTGAGCGACGACTGCGGCGGAGCGGCGGCGGCGGCGGCGG 480
Qy 432 CCTGCGCAACAGGTGTGAGCGACGACTGCGGCGGAGCGGCGGCGGCGGCGGCGG 491

Db 481 CCGGCTGGGCGAGCGAGTGTGCTGCTGCTGCGAGCGGCGGCGGCGGCGGCGGCGG 540
Qy 492 CCGGCTGGGCGAGCGAGTGTGCTGCTGCTGCGAGCGGCGGCGGCGGCGGCGGCGG 551

Db 541 GAGCTCCAGCTGCGCTCAACAGGTGTGCGGCGGCGGCGGCTGTACAGCTGCGGCGG 600
Qy 552 GAGCTCCAGCTGCGCTCAACAGGTGTGCGGCGGCGGCGGCTGTACAGCTGCGGCGG 611

Db 601 TCAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 660
Qy 612 TCAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 671

Db 661 CTGGAACCATAGCGTCAAGAGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 720
Qy 672 CTGGAACCATAGCGTCAAGAGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 731

Db 721 GAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 780
Qy 732 GAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 791

Db 781 TGCCCTTACGCGGAGCGGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 840
Qy 792 TGCCCTTACGCGGAGCGGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 851

Db 841 GCGTGCAGCAGAGTGCAGCGTGTGCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 900

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Qy 852 GCGTGCAGCAGAGTGCAGCGTGTGCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 911
Db 901 CACCTCTTTGAGGAGGTGCGCTCTGTGCGACGCGGCGGCGGCGGCGGCGGCGGCGGCGG 960
Qy 912 CACCTCTTTGAGGAGGTGCGCTCTGTGCGACGCGGCGGCGGCGGCGGCGGCGGCGGCGG 971

Db 961 GCACCGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1020
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Db 1081 GCCCTCTCTCTACTACGCTCTGTAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1140
Qy 1092 GCCCTCTCTCTACTACGCTCTGTAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1151

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CC	FILE REFERENCE:	015389-003310US
CC	CURRENT APPLICATION NUMBER:	US/09/128,354
CC	CURRENT FILING DATE:	1998-08-03
CC	EARLIER APPLICATION NUMBER:	US 08/951,843
CC	EARLIER FILING DATE:	1997-05-06
CC	EARLIER APPLICATION NUMBER:	US 08/854,050
CC	EARLIER FILING DATE:	1997-05-09
CC	EARLIER APPLICATION NUMBER:	US 08/911,312
CC	EARLIER FILING DATE:	1997-08-14
CC	EARLIER APPLICATION NUMBER:	US 08/912,951
CC	EARLIER FILING DATE:	1997-08-14
CC	EARLIER APPLICATION NUMBER:	US 08/915,503
CC	EARLIER FILING DATE:	1997-08-14
CC	EARLIER APPLICATION NUMBER:	WO PCT/US97/17618
CC	EARLIER FILING DATE:	1997-10-01
CC	EARLIER APPLICATION NUMBER:	WO PCT/US97/17885
CC	EARLIER FILING DATE:	1997-10-01
CC	EARLIER APPLICATION NUMBER:	US 08/974,549
CC	EARLIER FILING DATE:	1997-11-19
CC	EARLIER APPLICATION NUMBER:	US 08/974,584
CC	EARLIER FILING DATE:	1997-11-19
CC	EARLIER APPLICATION NUMBER:	US 09/052,864
CC	EARLIER FILING DATE:	1998-03-31
CC	NUMBER OF SEQ ID NOS:	21
CC	SOFTWARE:	PatentIn Ver. 2.0
CC	SEQ ID NO 1	
CC	LENGTH:	4015
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CC	ORGANISM:	Homo sapiens
CC	FEATURE:	
CC	NAME/KEY:	CDS
CC	LOCATION:	(56)..(3454)
CC	OTHER INFORMATION:	human telomerase reverse transcriptase (hTRT) cDNA
CC	SEQUENCE	4015 BP; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.
CC	Query Match	99.6%; Score 2837; DB 52; Length 4015;
CC	Best Local Similarity	100.0%; Pred. No. 0.0de+00;
CC	Matches	2837; Conservative 0; Mismatches 0; Indels 0; Gaps 0.
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Qy	12	GCAGGCGTCGTCTCTCTCTGCGACAGTGGAAGCCCTGGCCCCGGGCCAACCCCCGGATGCC 71
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Qy	72	GCGCGCTCCCGCTGCGCCAGCCGTGCGCTCCCTGCTGCGCAGCACTACCAGCATGTCCT 131
Db	121	GCGCGTGGCACGTTCTGTGCGCGCGCTGGGGCCCCAGGGCTGGCGGCTGTGTGACCGGG 180
Qy	132	GCGCGTGGCACGTTCTGTGCGCGCGCTGGGGCCCCAGGGCTGGCGGCTGTGTGACCGGG 191
Db	181	GGACCCGGCGGGTTTCCGCGCGGTGGGCCCATGTCCTGGTGTGCGTGGCCCTGGGACGC 240
Qy	192	GGACCCGGCGGGTTTCCGCGCGGTGGGCCCATGTCCTGGTGTGCGTGGCCCTGGGACGC 251
Db	241	ACGGCGCGCCCCCGCGCGCCCTCCTTCGCGCAGGTGCTGCTGTAAGAAGACTGTGGGC 300
Qy	252	ACGGCGCGCCCCCGCGCGCCCTCCTTCGCGCAGGTGCTGCTGTAAGAAGACTGTGGGC 311
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Qy	312	CCGAGTGTGCGAGAGGCTGTGCGAGCGCGGCGCGAAGAAGCTGTGGCTTCGGCTTCGC 371
Db	361	GCTGTGTGACGGGGGGGGGGGGGGGGGGGGGGGGAGGCTTACACACACAGCTGGCCAGTA 420
Qy	372	GCTGTGTGACGGGGGGGGGGGGGGGGGGGGGGGGAGGCTTACACACACAGCTGGCCAGTA 431
Db	421	CTGTGCGCAACAAGGTGACGCGACGACTGTGGGGGAGCGGGGCGTGGGGGCTGTGCTGGC 480
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Db	481	CCGCGTGGGCGACGAGTGTGTGATTACCTGTGGACAGCTGGCGCGCTTTGTGTGCTGT 540

QY 492 CCGGCTGGGGGACGACGCTGTTGTTACCTGTGGCAGCTGCGGCTTGTGTCTGCT 551
Db 541 GGGTCCAGCTGCGCTTACCAAGTGTGGGGCCGCCGTGTACCAAGCTGCGGCTGGCCAC 600
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QY 672 CTGGAACCATAGCGTCAAGGAGGCGGGGTCGCCCTGGGCGCTGCCAGCCCGGGTGGCAG 731
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QY 1932 CTTATCCCAAGGCTGACGGGCTGCGGCGATTGTGAACATGACTACGTCTGGAGC 1991
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QY 1992 CAGAAGCTTCCGACAGAAAAAGAGGGCGAGCGTCTACCTCGAGGGTGAAGGCACTGT 2051
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Db 2821 GCCGGCCACGGGCTTAT 2837
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RESULT 13
US-09-052-919-1 STANDARD; DNA; UMC; 4015 BP.
AC xxxxxx
DT Sequence 1, Application US/09052919
DE Sequence 1, Application US/09052919
CC GENERAL INFORMATION:

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Q 1212 GCCCAGCGCTACTGTGCAAAATGCGGCCCTGTTCTGTGAGCTGCTTGGGAACACAGCGCA 1271
D 1261 GTGCCCCCTACGCGGCTGCTCAAGACGACCTGCGCGCTGGAGCTGGGCTACCCGAGC 1320
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Q 1272 GTGCCCCCTACGCGGCTGCTCAAGACGACCTGCGCGCTGGAGCTGGGCTACCCGAGC 1331
D 1321 AGCGGCTGTGTGTGCGCGGAGAACCCGAGGCTGTGTGGGCGGCCCGCAGAGAGAGA 1380
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D 1381 CACAGACCCCGCTGCTGT 1440
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Q 1392 CACAGACCCCGCTGCTGT 1451
D 1441 CGGCTGT 1500
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Q 1452 CGGCTGT 1511
D 1501 CAAGCAAGCGCGCTCTCTCAGAGAACCAAGAGTTCTCTCTCTCTCTCTCTCTCTCTCT 1560
|||
Q 1512 CAAGCAAGCGCGCTCTCTCAGAGAACCAAGAGTTCTCTCTCTCTCTCTCTCTCTCTCT 1571
D 1561 GCTCTGCTGT 1620
|||
Q 1572 GCTCTGCTGT 1631
D 1621 GAGCCCAAGGGGT 1680
|||
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|||
Q 1692 CAAGTCTCTGTACTGT 1751
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D 1981 CAGACGTTCCGCAAGAGAAAAAGAGGCCGAGCTTCTCACTTCAGGGTGAAGGACTGTT 2040
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D 2041 CAGGCTGTCAACTACGAGGAGGCGGCGGCGCCGCGGCTCTCTGTGAGGCGCTTGTGTGTGT 2100
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Q 2112 CCGTGTGATATCCAGAGGCGCTGCGCACCTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2171
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D 2221 GGACAGGCTCAGAGGAGTCAATCGCAGCATCATTAACCCAGAAACAGTACTGCTGTGCG 2280
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Q 2232 GGACAGGCTCAGAGGAGTCAATCGCAGCATCATTAACCCAGAAACAGTACTGCTGTGCG 2291
D 2281 TCGGTATGCGGT 2340
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|||
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Q 2412 GACCAAGCCGCTGAGGAGT 2471
D 2461 CAGTGGCTCTTGT 2520
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D 2581 CAGCCTGT 2640
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Q 2592 CAGCCTGT 2651
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D 2701 CTTCCTAGAGACCTGT 2760
|||
Q 2712 CTTCCTAGAGACCTGT 2771
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ID US-09-026-981-35 STANDARD: DNA; UNC: 4023 BP.
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DT Sequence 35, Application US/09026981
DE Sequence 35, Application US/09026981
CC GENERAL INFORMATION:
CC APPLICANT: Counter, Christopher M.
CC APPLICANT: Weiberson, Matthew
CC TITLE OF INVENTION: Telomerase Catalytic Subunit Gene and
CC NUMBER OF SEQUENCES: 52

CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17618
CC FILING DATE: 01-OCT-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17885
CC FILING DATE: 01-OCT-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph Ted
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002610US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 343:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 4037 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: cDNA
CC FEATURE:
CC NAME/KEY: CDS
CC LOCATION: 56..3454
CC OTHER INFORMATION: /note= "refined sequence of hTERT cDNA"
SQ SEQUENCE 4037 BP; 682 A; 1361 C; 1276 G; 714 T; 4 OTHER.

Query Match 99.5%; Score 2833; DB 47; Length 4037;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 2835; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy 12 GCACGCTGCTCTGCTGCGACAGTGGGAAGCCCTGGCCCCGCGACCCCGGATGCC 71
Db 61 GCGGCTCCCGCTGCGAGCGCTGCGCTCCCTGCTGCGACGACATACCGCGAGTGCCT 120
Qy 72 GCGGCTCCCGCTGCGAGCGCTGCGCTCCCTGCTGCGACGACATACCGCGAGTGCCT 131
Db 121 GCGGCTGCGACGTTCTGTGCGGCGCTGGGCGCCCAAGGCTGGCGGCTGTGTCAGCGCG 180
Qy 132 GCGGCTGCGACGTTCTGTGCGGCGCTGGGCGCCCAAGGCTGGCGGCTGTGTCAGCGCG 191
Db 181 GGACCGGCGGCTTCCGCGCGCTGTGTGGCCAGTGCCTGTGTGCGTGCCTGGAGCGC 240
Qy 192 GGACCGGCGGCTTCCGCGCGCTGTGTGGCCAGTGCCTGTGTGCGTGCCTGGAGCGC 251
Db 241 ACGGCGCGCGCGCGCGCGCTTCCTCCGCGAGTGTCTGCGTGAAGAGAGTGTGGC 300
Qy 252 ACGGCGCGCGCGCGCGCGCTTCCTCCGCGAGTGTCTGCGTGAAGAGAGTGTGGC 311
Db 301 CCGAGTCTGCGAGAGGCTGTGCGAGCGGCGCGCAAGAACGTGTGCGCTTCCGCTTCGC 360
Qy 312 CCGAGTCTGCGAGAGGCTGTGCGAGCGGCGCGCAAGAACGTGTGCGCTTCCGCTTCGC 371
Db 361 GCTCTGTGAGCGGGCGCGCGGGGCGCGCGAGGCTTCACCAACCAAGCTGGCGAGCTA 420
Qy 372 GCTCTGTGAGCGGGCGCGCGGGGCGCGCGAGGCTTCACCAACCAAGCTGGCGAGCTA 431
Db 421 CCTGCCCAACAGGTTGACCGGACGCTGCGGGGAGGCGGGGCGTGGGGGCTGCTGCTGCG 480
Qy 432 CCTGCCCAACAGGTTGACCGGACGCTGCGGGGAGGCGGGGCGTGGGGGCTGCTGCTGCG 491
Db 481 CCGGCTGGGCGACAGCTGTGTTCACCTGTGCAAGCTGCGCGCTCTTGTGTGCTGCT 540
Qy 492 CCGGCTGGGCGACAGCTGTGTTCACCTGTGCAAGCTGCGCGCTCTTGTGTGCTGCT 551

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Qy 552 GGTCTCCACGCTGCGCTTACCAAGTGTGCGGGCGCGCGCTGTACCACTCGCGCTGCCAC 611
Db 601 TCAGGCGCGCGCGCGCGCACACGCTAGTGGACCCGGAAGGGGTGTGGGATGCGAAGCGCG 650
Qy 612 TCAGGCGCGCGCGCGCGCACACGCTAGTGGACCCGGAAGGGGTGTGGGATGCGAAGCGCG 671
Db 661 CTGGAACCATAGCTGACGAGGAGGCGGGGCTCCCTGGGCTGCCAGCCCGGGTGGAG 720
Qy 672 CTGGAACCATAGCTGACGAGGAGGCGGGGCTCCCTGGGCTGCCAGCCCGGGTGGAG 731
Db 721 GAGCGGGGGGGGAGTGTCCAGCCCAAGTCTGCTTGTCCCAAGAGGCCCAAGGCTGGCGC 780
Qy 732 GAGCGGGGGGGGAGTGTCCAGCCCAAGTCTGCTTGTCCCAAGAGGCCCAAGGCTGGCGC 791
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Db 901 CACCTCTTTGAGGGTGTGCGCTCTGTGCGAGCGCCACTTCCACCATTCCTGTGGCGCGCA 960
Qy 912 CACCTCTTTGAGGGTGTGCGCTCTGTGCGAGCGCCACTTCCACCATTCCTGTGGCGCGCA 971
Db 961 GCACACGCGGGCGCGCGCATACATCGCGGCGACAGCTGCTCCCTGGGAGACGCTTGTGC 1020
Qy 972 GCACACGCGGGCGCGCGCATACATCGCGGCGACAGCTGCTCCCTGGGAGACGCTTGTGC 1031
Db 1021 CCGGCTGAGCGCGAGACCAAGCACTTCTCTACTCTCTCAGGCGACAGAGAGCAGTGC 1080
Qy 1032 CCGGCTGAGCGCGAGACCAAGCACTTCTCTACTCTCTCAGGCGACAGAGAGCAGTGC 1091
Db 1081 GCGCTCTTCTCTACTCAGCTCTGTGAGGCCAGCTTGTGAGGCTGTGGA 1140
Qy 1092 GCGCTCTTCTCTACTCAGCTCTGTGAGGCCAGCTTGTGAGGCTGTGGA 1151
Db 1141 GACCATCTTCTGAGGTTCCAGGGCGCGCGTGGATGCCAGGACCTCCCGGAGTGGCCGCT 1200
Qy 1152 GACCATCTTCTGAGGTTCCAGGGCGCGCGTGGATGCCAGGACCTCCCGGAGTGGCCGCT 1211
Db 1201 GCGCCAGCGCTACTGCGAAATGCGGCCCTGTCTGTGAGCTGTCTGGAAACCAAGCGCA 1260
Qy 1212 GCGCCAGCGCTACTGCGAAATGCGGCCCTGTCTGTGAGCTGTCTGGAAACCAAGCGCA 1271
Db 1261 GTGCGCTTACGGGCTCTCTCAAGACGCACTGCGCGCTGCGAGCTCGGTCAACCCAGC 1320
Qy 1272 GTGCGCTTACGGGCTCTCTCAAGACGCACTGCGCGCTGCGAGCTCGGTCAACCCAGC 1331
Db 1321 AGCGGATGTGTCGCGGGGAGAGCCCAAGGGCTGTGTGGCGCGCGCGGAGGAGGA 1380
Qy 1332 AGCGGATGTGTCGCGGGGAGAGCCCAAGGGCTGTGTGGCGCGCGCGGAGGAGGA 1391
Db 1381 CACAGACCCCGCTGCTGTGTGTGCTCCGCGACAGCAGACGACCCCTGTGGAGGTGA 1440
Qy 1392 CACAGACCCCGCTGCTGTGTGTGCTCCGCGACAGCAGACGACCCCTGTGGAGGTGA 1451
Db 1441 CCGCTTGTGCGGGCTGTGCTGCGCGGCTGTGTGCTCCCGAGGCTGTGGGCTTCAAGGA 1500
Qy 1452 CCGCTTGTGCGGGCTGTGCTGCGCGGCTGTGTGCTCCCGAGGCTTGTGGGCTTCAAGGA 1511
Db 1501 CCAAGGAACGCGCTTCTCTCAAGGAACACCAAGAAATATCTCCCTGGGGAAGATGTGCCAA 1550
Qy 1512 CCAAGGAACGCGCTTCTCTCAAGGAACACCAAGAAATATCTCCCTGGGGAAGATGTGCCAA 1571
Db 1561 GCTCTGCTGAGAGAGTGAAGTGAAGATGAGGCTCGGGACTGCGCTTGTGGCTGCGCAG 1620
Qy 1572 GCTCTGCTGAGAGAGTGAAGTGAAGATGAGGCTCGGGACTGCGCTTGTGGCTGCGCAG 1631
Db 1621 GAGCCAGAGGGTTGTGTGTCTCCGGCGGACAGACACCGCTGTGCTGAGAGATCTTGGC 1680

|||||
QY 1632 GAGCCAGGGGTTGGCTGTGTTCGGCCCGCAGAGCACCGTCTCTGTGAGAGATCCGTGGC 1691
Db 1681 CAAGTTCCTGCACCTGCTGTAGAGTGTGTACGTGTGAGAGCTGCTAGGTCTTCTTTTA 1740
QY 1692 CAAGTTCCTGCACCTGCTGTAGAGTGTGTACGTGTGAGAGCTGCTAGGTCTTCTTTTA 1751
Db 1741 TGTACAGGAGAGACAGCTTTCAAAAGAACAGGCTTTTCTTACCGCCAGGTGTCTGGAG 1800
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QY 1932 CTTGATCCCCAACCTGACGGGCTGGGGCGGATTTGTAACATGACTACTGCTGGAGC 1991
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Db 2041 CAGCGTCTCACTACAGAGCGGGCGCGGCCGCCGCTCTGGGCGCTGTGTGCTGG 2100
QY 2052 CAGCGTCTCACTACAGAGCGGGCGCGGCCGCCGCTCTGGGCGCTGTGTGCTGG 2111
Db 2101 CCGTGAAGATATCAGAGGGCCGTGGGCACTTGTGCTGCTGTGCTGGGCGGAGAGCC 2160
QY 2112 CCGTGAAGATATCAGAGGGCCGTGGGCACTTGTGCTGCTGTGCTGGGCGGAGAGCC 2171
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Search completed: Tue Jun 27 18:20:06 2000
Job time : 8560 secs.

WORLDWIDE
(TM)

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MSPrch_PP protein - protein database search, using Smith-Waterman algorithm
Run on: Tue Jun 27 15:00:28 2000; MasPar time 54.94 Seconds
Tabular output not generated. 794.104 Million cell updates/sec

Title: >US-08-951-733-14
Description: (1-949) from US08951733.pep
Perfect Score: 7113
Sequence: 1 HASGRCVLRITWEALAPAT.....PVEDEALGRTAFVQMAHGL 949

Scoring table:
PAM 150
Gap 11

Searched: 380756 seqs, 45976785 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: a-pending
1:P9.2:U60.3:U7.4:U80.5:U81.6:U82.7:U83.8:U84A.9:U84B
10:U85.11:U86.12:U87.13:U88.14:U89.15:U90.16:U91.17:U92
18:NEWP.19:NEWU6.20:NEWU7.21:NEWU8.22:NEWU9

Statistics: Mean 40.242; Variance 192.047; scale 0.210

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	7113	100.0	949	14	US-08-951-Sequence 14, Applicat	0.00e+00
2	7113	100.0	1154	14	US-08-951-Sequence 20, Applicat	0.00e+00
3	7096	99.8	1189	14	US-08-974-Sequence 613, Applicat	0.00e+00
4	7096	99.8	1189	14	US-08-912-Sequence 325, Applicat	0.00e+00
5	7096	99.8	1189	14	US-08-911-Sequence 34, Applicat	0.00e+00
6	7096	99.8	1189	14	US-08-911-Sequence 34, Applicat	0.00e+00
7	7096	99.8	1200	14	US-08-974-Sequence 612, Applicat	0.00e+00
8	7096	99.8	1200	14	US-08-911-Sequence 33, Applicat	0.00e+00
9	7096	99.8	1200	14	US-08-911-Sequence 32, Applicat	0.00e+00
10	7096	99.8	1200	14	US-08-912-Sequence 32, Applicat	0.00e+00
11	7096	99.8	1285	14	US-08-974-Sequence 600, Applicat	0.00e+00
12	7096	99.8	1285	14	US-08-911-Sequence 32, Applicat	0.00e+00
13	7096	99.8	1285	14	US-08-912-Sequence 314, Applicat	0.00e+00
14	7096	99.8	1285	14	US-08-911-Sequence 32, Applicat	0.00e+00
15	7096	99.6	1407	14	US-08-911-Sequence 55, Applicat	0.00e+00
16	7096	99.6	1407	14	US-08-912-Sequence 334, Applicat	0.00e+00
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18	7096	99.6	1407	14	US-08-974-Sequence 628, Applicat	0.00e+00
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20	6954	97.8	1132	13	US-08-854-Sequence 22, Applicat	0.00e+00
21	6954	97.8	1132	22	US-09-108-Sequence 2, Applicatio	0.00e+00

RESULT	ID	US-08-951-733-14	STANDARD:	PRT:	949 AA.
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XX	DT				
XX	DE	Sequence 14, Application US/08951733			
CC	CC	Sequence 14, Application US/08951733			
CC	CC	GENERAL INFORMATION:			
CC	CC	APPLICANT: Harrington, Lea A.			
CC	CC	APPLICANT: Robinson, Murray O.			
CC	CC	TITLE OF INVENTION: NOVEL GENES ENCODING TELOMERASE PROTEINS			
CC	CC	NUMBER OF SEQUENCES: 44			
CC	CC	CORRESPONDENCE ADDRESS:			
CC	CC	ADDRESS: Amgen Inc.			
CC	CC	STREET: One Amgen Center Drive			
CC	CC	CITY: Thousand Oaks			
CC	CC	STATE: CA			
CC	CC	COUNTRY: USA			
CC	CC	ZIP: 91320-1789			
CC	CC	COMPUTER READABLE FORM:			
CC	CC	MEDIUM TYPE: Floppy disk			
CC	CC	COMPUTER: IBM PC compatible			
CC	CC	OPERATING SYSTEM: PC-DOS/MS-DOS			
CC	CC	SOFTWARE: Patent Release #1.0, Version #1.30			
CC	CC	CURRENT APPLICATION DATA:			
CC	CC	APPLICATION NUMBER: US/08/951,733			
CC	CC	FILING DATE: 16-OCT-1997			
CC	CC	CLASSIFICATION: 435			
CC	CC	PRIOR APPLICATION DATA:			
CC	CC	APPLICATION NUMBER: US 08/873,039			
CC	CC	FILING DATE: 11-JUN-1997			
CC	CC	PRIOR APPLICATION DATA:			
CC	CC	APPLICATION NUMBER: US 08/751,189			
CC	CC	FILING DATE: 15-NOV-1996			
CC	CC	ATTORNEY/AGENT INFORMATION:			
CC	CC	NAME: Oleksi, Nancy A.			
CC	CC	REGISTRATION NUMBER: 34,688			
CC	CC	REFERENCE/DOCKET NUMBER: A-433B			
CC	CC	TELECOMMUNICATION INFORMATION:			
CC	CC	TELEPHONE: (805) 447-6504			
CC	CC	TELEFAX: (805) 499-8011			
CC	CC	INFORMATION FOR SEQ ID NO: 14:			

CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 949 amino acids
CC TYPE: amino acid
CC STRANDEDNESS: unknown
CC TOPOLOGY: unknown
CC MOLECULE TYPE: protein
CC SEQUENCE 949 AA; 106370 MW; 4628597 CN;

Query Match 100.0%; Score 7113; DB 14; Length 949;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 949; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 HASGRCVLTWTWALPATPAMPAPRCRAVSLRSHRYEVLPLATFVRRLGPGQWRL 60
QY 1 HASGRCVLTWTWALPATPAMPAPRCRAVSLRSHRYEVLPLATFVRRLGPGQWRL 60
Db 61 VORGDPAFPAALVAQCLVCPWMDARPPAPSPROYSCLELVARVLQRLCERAKNVLA 120
QY 61 VORGDPAFPAALVAQCLVCPWMDARPPAPSPROYSCLELVARVLQRLCERAKNVLA 120
Db 121 FGFALLDGAAGGPPPEAFTTSVRSYLPNTVTDALRGSGANGLLRRVGDVYLHLLARCAL 180
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Db 361 EOLAPSSLSSLRSLGARLVETIFLSRPMGTPRRLPLPOXYWQMRPLFELLLG 420
QY 361 EOLAPSSLSSLRSLGARLVETIFLSRPMGTPRRLPLPOXYWQMRPLFELLLG 420
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QY 421 NHAOCPPGYVLLKTHCPRAAATPAAGVCAAREKPGSVAAPEEDTDRRLVQLLRQSSP 480
Db 481 WQYGFPAACLRRLVPPGLWGSRNERRFLNTKFTSLGKHAFLSQELTWKMSVDC 540
QY 481 WQYGFPAACLRRLVPPGLWGSRNERRFLNTKFTSLGKHAFLSQELTWKMSVDC 540
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QY 541 WLRSPPGVGCPAHEHLREELLAKFLHMLMSYVVELLSFEFVTEETQKNLFERYK 600
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QY 601 SVMSKLOSIGIRQLKRVOLRELSAEVROHREARPALLSRLRFIPKPGILRIVMNDY 660
Db 661 VVGARTRRREKRAERLTSRYKALFSVLYNERARPPGLGASVIGLDDIHRAWRTFVLVR 720
QY 661 VVGARTRRREKRAERLTSRYKALFSVLYNERARPPGLGASVIGLDDIHRAWRTFVLVR 720
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QY 721 AODPPPELYFKVNVNTAYDITIPDDRLEVTASTIKPONTYCVRRYAVVOAAAGHAKA 780
Db 781 FKSHVSTLTDLQPYMRQFVAHILQETSPLRDAVYIEOSSSLNEASSGFLDFVLRMCHAAV 840
QY 781 FKSHVSTLTDLQPYMRQFVAHILQETSPLRDAVYIEOSSSLNEASSGFLDFVLRMCHAAV 840
Db 841 RIRKSTVYOCQIGIPQSSILSTLCSLCYGDMENTLFAGIRRDGILLRLVDFLLVTHLT 900
QY 841 RIRKSTVYOCQIGIPQSSILSTLCSLCYGDMENTLFAGIRRDGILLRLVDFLLVTHLT 900
Db 901 HAKFTLRLVGRVPEYGCYVNLKRTVNFPEDEALGTAFAVQMPAHGL 949

QY 901 HAKFTLRLVGRVPEYGCYVNLKRTVNFPEDEALGTAFAVQMPAHGL 949

RESULT 2
ID US-08-951-733-20 STANDARD; PRT: 1154 AA.
AC xxxxxx
XX

DE Sequence 20, Application US/08951733

CC Sequence 20, Application US/08951733

CC GENERAL INFORMATION:

CC APPLICANT: Harrington, Lea A.

CC TITLE OF INVENTION: NOVEL GENES ENCODING TELOMERASE PROTEINS

CC NUMBER OF SEQUENCES: 44

CC CORRESPONDENCE ADDRESS:

CC ADDRESSEE: Amgen Inc.

CC STREET: One Amgen Center Drive

CC CITY: Thousand Oaks

CC STATE: CA

CC COUNTRY: USA

CC ZIP: 91320-1789

CC COMPUTER READABLE FORM:

CC MEDIUM TYPE: Floppy disk

CC COMPUTER: IBM PC compatible

CC OPERATING SYSTEM: PC-DOS/MS-DOS

CC SOFTWARE: Patent In Release #1.0, Version #1.30

CC CURRENT APPLICATION DATA:

CC APPLICATION NUMBER: US/08/951,733

CC FILING DATE: 16-OCT-1997

CC CLASSIFICATION: 435

CC PRIOR APPLICATION DATA:

CC APPLICATION NUMBER: US 08/873,039

CC FILING DATE: 11-JUN-1997

CC PRIOR APPLICATION DATA:

CC APPLICATION NUMBER: US 08/751,189

CC FILING DATE: 15-NOV-1996

CC ATTORNEY/AGENT INFORMATION:

CC NAME: Oleski, Nancy A.

CC REGISTRATION NUMBER: 34,688

CC REFERENCE/DOCKET NUMBER: A-433B

CC TELECOMMUNICATION INFORMATION:

CC TELEPHONE: (805) 447-6504

CC TELEFAX: (805) 499-8011

CC INFORMATION FOR SEQ ID NO: 20:

CC SEQUENCE CHARACTERISTICS:

CC LENGTH: 1154 amino acids

CC TYPE: amino acid

CC STRANDEDNESS: unknown

CC TOPOLOGY: unknown

CC MOLECULE TYPE: protein

CC SEQUENCE 1154 AA; 129326 MW; 6842246 CN;

Query Match 100.0%; Score 7113; DB 14; Length 1154;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;

Matches 949; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 HASGRCVLTWTWALPATPAMPAPRCRAVSLRSHRYEVLPLATFVRRLGPGQWRL 60
QY 1 HASGRCVLTWTWALPATPAMPAPRCRAVSLRSHRYEVLPLATFVRRLGPGQWRL 60
Db 61 VORGDPAFPAALVAQCLVCPWMDARPPAPSPROYSCLELVARVLQRLCERAKNVLA 120
QY 61 VORGDPAFPAALVAQCLVCPWMDARPPAPSPROYSCLELVARVLQRLCERAKNVLA 120
Db 121 FGFALLDGAAGGPPPEAFTTSVRSYLPNTVTDALRGSGANGLLRRVGDVYLHLLARCAL 180
QY 121 FGFALLDGAAGGPPPEAFTTSVRSYLPNTVTDALRGSGANGLLRRVGDVYLHLLARCAL 180
Db 181 FVLVAPSCAYOVCGRPLYOGLGAATQARPAPPHASGPRRLGCERAMNHSVREAGVPLGLPA 240
QY 181 FVLVAPSCAYOVCGRPLYOGLGAATQARPAPPHASGPRRLGCERAMNHSVREAGVPLGLPA 240
Db 241 PGARRRGSGASRSLPLPKPRRGAPPERTPVQGSMAHPGRTGSPDRGFCVSPARP 300
QY 241 PGARRRGSGASRSLPLPKPRRGAPPERTPVQGSMAHPGRTGSPDRGFCVSPARP 300
Db 301 AEEATSEGAISGRSHSPSVGRONHAGPSTSPRPMDTPCBPVYAETKHFLYS GDK 360
QY 301 AEEATSEGAISGRSHSPSVGRONHAGPSTSPRPMDTPCBPVYAETKHFLYS GDK 360
Db 361 EOLAPSSLSSLRSLGARLVETIFLSRPMGTPRRLPLPOXYWQMRPLFELLLG 420
QY 361 EOLAPSSLSSLRSLGARLVETIFLSRPMGTPRRLPLPOXYWQMRPLFELLLG 420
Db 421 NHAOCPPGYVLLKTHCPRAAATPAAGVCAAREKPGSVAAPEEDTDRRLVQLLRQSSP 480
QY 421 NHAOCPPGYVLLKTHCPRAAATPAAGVCAAREKPGSVAAPEEDTDRRLVQLLRQSSP 480
Db 481 WQYGFPAACLRRLVPPGLWGSRNERRFLNTKFTSLGKHAFLSQELTWKMSVDC 540
QY 481 WQYGFPAACLRRLVPPGLWGSRNERRFLNTKFTSLGKHAFLSQELTWKMSVDC 540
Db 541 WLRSPPGVGCPAHEHLREELLAKFLHMLMSYVVELLSFEFVTEETQKNLFERYK 600
QY 541 WLRSPPGVGCPAHEHLREELLAKFLHMLMSYVVELLSFEFVTEETQKNLFERYK 600
Db 601 SVMSKLOSIGIRQLKRVOLRELSAEVROHREARPALLSRLRFIPKPGILRIVMNDY 660
QY 601 SVMSKLOSIGIRQLKRVOLRELSAEVROHREARPALLSRLRFIPKPGILRIVMNDY 660
Db 661 VVGARTRRREKRAERLTSRYKALFSVLYNERARPPGLGASVIGLDDIHRAWRTFVLVR 720
QY 661 VVGARTRRREKRAERLTSRYKALFSVLYNERARPPGLGASVIGLDDIHRAWRTFVLVR 720
Db 721 AODPPPELYFKVNVNTAYDITIPDDRLEVTASTIKPONTYCVRRYAVVOAAAGHAKA 780
QY 721 AODPPPELYFKVNVNTAYDITIPDDRLEVTASTIKPONTYCVRRYAVVOAAAGHAKA 780
Db 781 FKSHVSTLTDLQPYMRQFVAHILQETSPLRDAVYIEOSSSLNEASSGFLDFVLRMCHAAV 840
QY 781 FKSHVSTLTDLQPYMRQFVAHILQETSPLRDAVYIEOSSSLNEASSGFLDFVLRMCHAAV 840
Db 841 RIRKSTVYOCQIGIPQSSILSTLCSLCYGDMENTLFAGIRRDGILLRLVDFLLVTHLT 900
QY 841 RIRKSTVYOCQIGIPQSSILSTLCSLCYGDMENTLFAGIRRDGILLRLVDFLLVTHLT 900
Db 901 HAKFTLRLVGRVPEYGCYVNLKRTVNFPEDEALGTAFAVQMPAHGL 949

DB 181 FVLVAPSCAYOVCPPLVQLGATATARPBPBPHASGPRRLGCEBRANMHSYREAGVPLGPA 240
 QY 181 FVLVAPSCAYOVCPPLVQLGATATARPBPBPHASGPRRLGCEBRANMHSYREAGVPLGPA 240
 DB 241 PGARRRGSSASRSLPLPKRPRRGAAPEPERTPVGGGSMANHPRTGSPDRGCVVSPARP 300
 QY 241 PGARRRGSSASRSLPLPKRPRRGAAPEPERTPVGGGSMANHPRTGSPDRGCVVSPARP 300
 DB 301 AEEATSLGALSGTRHSHPSVGRQHAGAPPTSRPPRMDTPCPPVYAEKHFILYSSGDK 360
 QY 301 AEEATSLGALSGTRHSHPSVGRQHAGAPPTSRPPRMDTPCPPVYAEKHFILYSSGDK 360
 DB 361 EQLRSEFLLSLRPSLTGARRLVETIFLGSRPMMGTTRRLRLQRTQWMPLELLIG 420
 QY 361 EQLRSEFLLSLRPSLTGARRLVETIFLGSRPMMGTTRRLRLQRTQWMPLELLIG 420
 DB 421 NHAOCPPYVLTKHCPRLRAAVTPAAGVCAREKPGGSVAAPEDDTPRRLVOLLQHSPP 480
 QY 421 NHAOCPPYVLTKHCPRLRAAVTPAAGVCAREKPGGSVAAPEDDTPRRLVOLLQHSPP 480
 DB 481 MOYGFVPAACLRRLVPGILWGSRHNERREFLNTKFFISLGHAKLSLOELTWKMSVRDCA 540
 QY 481 MOYGFVPAACLRRLVPGILWGSRHNERREFLNTKFFISLGHAKLSLOELTWKMSVRDCA 540
 DB 541 WLRRSPGVCPAAHRLREELIAKELHMLMSVYVELLSRFEYETTFQKNRLFYRK 600
 QY 541 WLRRSPGVCPAAHRLREELIAKELHMLMSVYVELLSRFEYETTFQKNRLFYRK 600
 DB 601 SWSKLSIGIRQHLKRVQLRELSEAEVQROHREARPAALLTSRLRFPKPDGLRPLVNDY 660
 QY 601 SWSKLSIGIRQHLKRVQLRELSEAEVQROHREARPAALLTSRLRFPKPDGLRPLVNDY 660
 DB 661 VVGARTFRRERKAEPLTSRKALFSLVLYERARBPGLLGASVLDGDDIHRANRTEFLVR 720
 QY 661 VVGARTFRRERKAEPLTSRKALFSLVLYERARBPGLLGASVLDGDDIHRANRTEFLVR 720
 DB 721 AADPELTFKVDVDTGAVDTIPODRLTEVASTIKPONTVCVRXYAVQKAAHSHVKA 780
 QY 721 AADPELTFKVDVDTGAVDTIPODRLTEVASTIKPONTVCVRXYAVQKAAHSHVKA 780
 DB 781 FKSHVSTLTDLPYMRQFVAHLQETSPLRDVAVIEQSSSLNASSGLDFVFLRFCHHAV 840
 QY 781 FKSHVSTLTDLPYMRQFVAHLQETSPLRDVAVIEQSSSLNASSGLDFVFLRFCHHAV 840
 DB 841 RIRGKSYVQOCGIPGGSILSTLLCSLCYGDMEKLFAGIRRDGLLRLVDEFLVTPHLT 900
 QY 841 RIRGKSYVQOCGIPGGSILSTLLCSLCYGDMEKLFAGIRRDGLLRLVDEFLVTPHLT 900
 DB 901 HAKTFLRTLVGPEYGVNLRKTVNFPVDEALGTAFTQMPAHGL 949
 QY 901 HAKTFLRTLVGPEYGVNLRKTVNFPVDEALGTAFTQMPAHGL 949

CC CORRESPONDENCE ADDRESS:
 CC ADDRESSEE: Townsend and Townsend and Crew LLP
 CC STREET: Two Embarcadero Center, Eighth Floor
 CC CITY: San Francisco
 CC STATE: California
 CC COUNTRY: USA
 CC ZIP: 94111-3834
 CC
 CC COMPUTER READABLE FORM:
 CC MEDIUM TYPE: Floppy disk
 CC COMPUTER: IBM PC compatible
 CC OPERATING SYSTEM: PC-DOS/MS-DOS
 CC SOFTWARE: Patent Release #1.0, Version #1.30
 CC
 CC CURRENT APPLICATION DATA:
 CC APPLICATION NUMBER: US/08/974,549
 CC FILING DATE: 19-NOV-1997
 CC CLASSIFICATION: 536
 CC
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/724,643
 CC FILING DATE: 01-OCT-1996
 CC
 CC APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/844,419
 CC FILING DATE: 18-APR-1997
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/846,017
 CC FILING DATE: 25-APR-1997
 CC
 CC APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/851,843
 CC FILING DATE: 06-MAY-1997
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/854,050
 CC FILING DATE: 09-MAY-1997
 CC
 CC APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/911,312
 CC FILING DATE: 14-AUG-1997
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: US 08/915,503
 CC FILING DATE: 14-AUG-1997
 CC PRIOR APPLICATION DATA:
 CC APPLICATION NUMBER: NO PCT/US97/17618
 CC FILING DATE: 01-OCT-1997
 CC
 CC APPLICATION DATA:
 CC APPLICATION NUMBER: WO PCT/US97/17885
 CC FILING DATE: 01-OCT-1997
 CC ATTORNEY/AGENT INFORMATION:
 CC NAME: Apple, Randolph Ted
 CC REGISTRATION NUMBER: 36,429
 CC REFERENCE/DOCKET NUMBER: 015389-002610US
 CC TELECOMMUNICATION INFORMATION:
 CC TELEPHONE: (415) 576-0200
 CC TELEFAX: (415) 576-0300
 CC INFORMATION FOR SDO ID NO: 613:
 CC SEQUENCE CHARACTERISTICS:
 CC LENGTH: 1189 amino acids
 CC TYPE: amino acid
 CC STRANDEDNESS:
 CC TOPOLOGY: linear
 CC MOLECULE TYPE: protein
 CC FEATURE:
 CC NAME/KEY: Protein
 CC LOCATION: 1..1189
 CC OTHER INFORMATION: /note="fusion protein composed of
 CC OTHER INFORMATION: melittin signal sequence and full length
 CC OTHER INFORMATION: htrt protein"
 CC SEQUENCE 1189 AA: 133179 MW: 7256545 CN:
 S0
 DB 37 ASTORCVLLRTWELALPATPAMPAPRCRAVRSLLRSHYREVLPATFVVRKLGPOGRRLV 96

QY 2 ASGQRCVLLRTWEALAPATPAMPAPRCRAVSLRSHYREVLPATFVRLQRLCEGANKVLA 61
DB 97 QRGDPAAFRALVAQCLVCVPMWDAAPPAPSPFROVSCLEKELVARVLOQLCEGANKVLA 156
QY 62 QRGDPAAFRALVAQCLVCVPMWDAAPPAPSPFROVSCLEKELVARVLOQLCEGANKVLA 121
DB 157 GFALLDGAARGGPEAFTTSVRSYLPNTVDALGSGAMGILLRVDGVYVHLLARCALE 216
QY 122 GFALLDGAARGGPEAFTTSVRSYLPNTVDALGSGAMGILLRVDGVYVHLLARCALE 181
DB 217 VLVAPSCAVOCCPPLXQLOGAATQARPAPASGPRRLGGERAMNSVRAVPLGIPAP 276
QY 182 VLVAPSCAVOCCPPLXQLOGAATQARPAPASGPRRLGGERAMNSVRAVPLGIPAP 241
DB 277 GARRRGGSASRSLPLPKPRRGAAPPEERTPVQGSWAHPGRTGSPDRGFCVSPARPA 336
QY 242 GARRRGGSASRSLPLPKPRRGAAPPEERTPVQGSWAHPGRTGSPDRGFCVSPARPA 301
DB 337 EEAATSLGALSGTRHSHPSYGRQHHAGPSTSRPPRMDTPCPVYAETKHEFLYSSGDK 396
QY 302 EEAATSLGALSGTRHSHPSYGRQHHAGPSTSRPPRMDTPCPVYAETKHEFLYSSGDK 361
DB 397 QLRPSFLSLRSLTGARLVETIFLGSPPMGPTRRLPRLPORYWOMRPLFLELGN 456
QY 362 QLRPSFLSLRSLTGARLVETIFLGSPPMGPTRRLPRLPORYWOMRPLFLELGN 421
DB 457 HAOCPPYGLTKHCPPLAAVTPAAGVCARREKPGSVAAPBEDDTPRRLVOLLROHSSPW 516
QY 422 HAOCPPYGLTKHCPPLAAVTPAAGVCARREKPGSVAAPBEDDTPRRLVOLLROHSSPW 481
DB 517 QVYGFYRACLRRLVPPGLMWSRHRERFLNTRKFTSLGHAHLSLOELTWKMSVRCAM 576
QY 482 QVYGFYRACLRRLVPPGLMWSRHRERFLNTRKFTSLGHAHLSLOELTWKMSVRCAM 541
DB 577 LRSPGVCVPAEHLRREELIAKFLHMLMSYVVELLRSEFYVETTFEOKNLFYRK 636
QY 542 LRSPGVCVPAEHLRREELIAKFLHMLMSYVVELLRSEFYVETTFEOKNLFYRK 601
DB 637 VMSKLOSIGIRQHLKRVQLELSEAEVROHREARPALTSRLRFIPKPDGLRPIVMNDV 696
QY 602 VMSKLOSIGIRQHLKRVQLELSEAEVROHREARPALTSRLRFIPKPDGLRPIVMNDV 661
DB 697 VGARTRERERARERLTSRVKALFSVLYNERARRPGLLGASVGLDIDIRHMRKTFVLRVA 756
QY 662 VGARTRERERARERLTSRVKALFSVLYNERARRPGLLGASVGLDIDIRHMRKTFVLRVA 721
DB 757 QDPPPELYEYKVDVGTAYDTIPQDRLLEVYASIIKQONTYCVRRYAVVQKAAHGHYRKAF 816
QY 722 QDPPPELYEYKVDVGTAYDTIPQDRLLEVYASIIKQONTYCVRRYAVVQKAAHGHYRKAF 781
DB 817 KSHVSTLTDLPQPMRQFVAHLOETSPLRDAVYIEQSSSLNEASSGLFDVFLRMCCHAVR 876
QY 782 KSHVSTLTDLPQPMRQFVAHLOETSPLRDAVYIEQSSSLNEASSGLFDVFLRMCCHAVR 841
DB 877 IRGKSYVVOGIPQGSILSLCISYGDMENTLFGIRRDGILLRLYDFFLLVTHLTH 936
QY 842 IRGKSYVVOGIPQGSILSLCISYGDMENTLFGIRRDGILLRLYDFFLLVTHLTH 901
DB 937 AKTFELTVRGVPEYGCYVNLKRTVNFPEVEDALGTAFVQPAHGL 984
QY 902 AKTFELTVRGVPEYGCYVNLKRTVNFPEVEDALGTAFVQPAHGL 949

RESULT 4
ID US-08-951-325 STANDARD: PRT: 1189 AA.
AC xxxxxx
XX
XX
XX
XX
XX
XX
XX

Sequence 325, Application US/08912951

CC Sequence 325, Application US/08912951
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin H.
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESS: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent in Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002600US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 325:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1189 AA; 133179 MW; 7256545 CN;

Query Match 99.8%; Score 7096; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 37 ASTQRCVLLRTWEALAPATPAMPAPRCRAVSLRSHYREVLPATFVRLQRLCEGANKVLA 96
QY 2 ASGQRCVLLRTWEALAPATPAMPAPRCRAVSLRSHYREVLPATFVRLQRLCEGANKVLA 61
DB 97 QRGDPAAFRALVAQCLVCVPMWDAAPPAPSPFROVSCLEKELVARVLOQLCEGANKVLA 156

|||||
QY 62 QRGDPAFAFALVAOCIVCPWDPAPRPAAPSRFOVSCLELVARVLORLCEGAKNVLA 121
Db 157 GFALLDGAANGGPEAFETTSVRSYLPNTVTDALRGSGAMGILLRRVGDVVLHLLARCALF 216
QY 122 GFALLDGAANGGPEAFETTSVRSYLPNTVTDALRGSGAMGILLRRVGDVVLHLLARCALF 181
Db 217 VLVASCAAYOVCGPRLYQUGAATQARPPHNASGPRRLCCERAMNHVSVEAGVPLGLPAP 276
QY 182 VLVASCAAYOVCGPRLYQUGAATQARPPHNASGPRRLCCERAMNHVSVEAGVPLGLPAP 241
Db 277 GARRGGASRSRLPKRRRGAAPEPERTPYGOGGMAHPRTRGSDGFCFVSPARA 336
QY 242 GARRGGASRSRLPKRRRGAAPEPERTPYGOGGMAHPRTRGSDGFCFVSPARA 301
Db 337 BEATLEGALSGTRSHSPSVGROHNAAGPPSTSRPPRMDTPCPVYAEATKHFLYSSGDK 396
QY 302 BEATLEGALSGTRSHSPSVGROHNAAGPPSTSRPPRMDTPCPVYAEATKHFLYSSGDK 361
Db 397 QLRPSFLSSLRPSLPGARLVETIFLGSRPWMPGTPRRLPRLPQRYWQMRPLFELGN 456
QY 362 QLRPSFLSSLRPSLPGARLVETIFLGSRPWMPGTPRRLPRLPQRYWQMRPLFELGN 421
Db 457 HAQCFYGVLLKTHCPBRAAVTPAGVCAAREKPOGSAAPDEEDTDPRRLVOLLROHSSPW 516
QY 422 HAQCFYGVLLKTHCPBRAAVTPAGVCAAREKPOGSAAPDEEDTDPRRLVOLLROHSSPW 481
Db 517 OYGVFVRACLRLRVPPLGMSRHNERRFLRNTKFLSLGKHAKLSLQELTWKMSVDCAM 576
QY 482 OYGVFVRACLRLRVPPLGMSRHNERRFLRNTKFLSLGKHAKLSLQELTWKMSVDCAM 541
Db 577 LRRSGVCGVPAEHRLEBEILAKFLHMLASYVVELLSFFYVETTTQKNLFFYRKS 636
QY 542 LRRSGVCGVPAEHRLEBEILAKFLHMLASYVVELLSFFYVETTTQKNLFFYRKS 601
Db 637 VMSKLOSIGIRHOLKRVQJRELSAEVROHREARPLLRLSLRFLPKPGLRPYMDV 696
QY 602 VMSKLOSIGIRHOLKRVQJRELSAEVROHREARPLLRLSLRFLPKPGLRPYMDV 661
Db 697 VGARTFRREKRAERLTSVKALFSVLYNERARRPGLLGA SVLGLDDIHRAMRTFVLRA 756
QY 662 VGARTFRREKRAERLTSVKALFSVLYNERARRPGLLGA SVLGLDDIHRAMRTFVLRA 721
Db 757 ODPEPELVKVDYGVAYTIPQDLTEVIASIKPONTYCVRYAVVOKAAHGHVRA 816
QY 722 ODPEPELVKVDYGVAYTIPQDLTEVIASIKPONTYCVRYAVVOKAAHGHVRA 781
Db 817 KSHVSTLTDLOPYMROFVAHLOETSPLRDAVYIEOSSLINEASSGLFDEFLRPMCHNAVR 876
QY 782 KSHVSTLTDLOPYMROFVAHLOETSPLRDAVYIEOSSLINEASSGLFDEFLRPMCHNAVR 841
Db 877 IRGKSVVOCGIPGSIILSTLCSLCYGDMEKMLFAGIRRDGILLRLVDDFLVPHLTH 936
QY 842 IRGKSVVOCGIPGSIILSTLCSLCYGDMEKMLFAGIRRDGILLRLVDDFLVPHLTH 901
Db 937 AKTFPLTLVKGYPEVGCYVNLKRTVNVFVEDEALCGTAFVQMPAHGL 984
QY 902 AKTFPLTLVKGYPEVGCYVNLKRTVNVFVEDEALCGTAFVQMPAHGL 949

RESULT 5
ID US-08-911-312A-34 STANDARD: PRT: 1189 AA.

AC xxxxxx
XX
DT
XX
XX
Sequence 34, Application US/08911312A
CC Sequence 34, Application US/08911312A
CC GENERAL INFORMATION:
CC APPLICANT: Cecch, Thomas R.
CC APPLICANT: Lingner, Joachim

CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 171
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312A
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 34:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1189 AA; 133179 MW; 7256545 CN;
Query Match 99.8%; Score 7096; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 37 ASTORCVILRTWEALAPATPAMPAPRCRAVSLRSRHYREVLPATFVRILGPGQMRIV 96
QY 2 ASGQRCVILRTWEALAPATPAMPAPRCRAVSLRSRHYREVLPATFVRILGPGQMRIV 61
Db 97 QRGDPAFAFALVAOCIVCPWDPAPRPAAPSRFOVSCLELVARVLORLCEGAKNVLA 156
QY 62 QRGDPAFAFALVAOCIVCPWDPAPRPAAPSRFOVSCLELVARVLORLCEGAKNVLA 121
Db 157 GFALLDGAANGGPEAFETTSVRSYLPNTVTDALRGSGAMGILLRRVGDVVLHLLARCALF 216

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QY 302 BEATSEBALSSTRSHSHSVGRHSHAGPSTSRPRPMDTCCPYAETKHFVSSGDK 361
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RESULT 6
ID US-08-911-312-34 STANDARD: PRT: 1189 AA.

AC xxxxxx
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DE Sequence 34, Application US/08911312
CC Sequence 34, Application US/08911312
CC GENERAL INFORMATION:
CC APPLICANT: Cecch, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.

CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC City: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-Aug-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-Oct-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-Apr-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-Apr-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-May-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-May-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-Aug-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-Aug-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 34:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1189 AA; 133179 MW; 7256545 CN;

Query Match 99.8%; Score 7096; DB 14; Length 1189;
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Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
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QY 62 QRGDPAFRLVAOCLVCPWDARPPAPSFROVSCLEKELVAVVLQRLGEGAKNVLA 121
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Db 217 VLVAWSCAYQVCGPPLVQLGAATQARPPHASGPRRLGCEBAMNHSVREAGVPLGLPAP 276


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CC ADDRESS: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
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CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/974,549
CC FILING DATE: 19-NOV-1997
CC CLASSIFICATION: 536
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CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
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CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
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CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/911,312
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CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
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CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17618
CC FILING DATE: 01-OCT-1997
CC
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17685
CC FILING DATE: 01-OCT-1997
CC
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph Ted
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002610US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC
CC INFORMATION FOR SEQ ID NO: 612:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1200 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: Protein
CC LOCATION: 1..1200
CC OTHER INFORMATION: /note= "fusion protein composed of His6
CC OTHER INFORMATION: and Anti-Xpress tags, enterokinase
CC OTHER INFORMATION: cleavage site and full length hrpt
CC OTHER INFORMATION: protein"
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CC SEQUENCE 1200 AA: 134322 NM; 7387257 CN;

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QY 62 QRGDPAAFRALVAOCLVCPWMDARPPAPSPFROVSCLEKELVAVLQRLCERGAKNVLA 121
DB 168 GFALLDARGGPPAFTTSVRSYLPNTVTDALRSGGAMGLLRVGDVYVHLARCALF 227
QY 122 GFALLDARGGPPAFTTSVRSYLPNTVTDALRSGGAMGLLRVGDVYVHLARCALF 181
DB 228 VLVAPSCAYOVCBPPLYOLGAATQAPPPHAGSPRRRLGCERAMNHSREAGVPLGPAP 287
QY 182 VLVAPSCAYOVCBPPLYOLGAATQAPPPHAGSPRRRLGCERAMNHSREAGVPLGPAP 241
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QY 602 VWSKLOSGTIGRQHLKRVQLRSLSAEVRQHRARPALLTSRLRPIPRDGLRPIVNM DYV 661
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QY 662 VGATTFRRERKAEHLTGRVVALFVLYNERARRBGLLGASVLDGDIHRAMRTFVLVRA 721
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QY 842 IRGKSYVOCGIPGSLTSLTSLCYGDMENKLFAGIRBQGLLRVLDVDFLVTPLH 901
DB 948 AKTEFLRTLVRGVPYGCVVNLKTVNFPVEDEALGTAFOVPAHGL 995
QY 902 AKTEFLRTLVRGVPYGCVVNLKTVNFPVEDEALGTAFOVPAHGL 949

RESULT 8
ID US-08-911-312A-33 STANDARD; PRT; 1200 AA.
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AC xxxxxx
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Sequence 33, Application US/08911312A

CC Sequence 33, Application US/08911312A
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Hartley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 171
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312A
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 33:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1200 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1200 AA: 134332 MW: 7387257 CN:
SQ
Query Match 99.8%; Score 7096; DB 14; Length 1200;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
DB 48 ASTQRCVLLRTWELALPATPMPAPRCRAVRSLSRSHREVLPATFVRRLGQGMRLV 107
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DB 108 QRGDPAAFRALVAOCLVCPWMDARPPAPSPFROVSCLEKELVAVLQRLCERGAKNVLA 167

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Db 948 AKTFLRLVLRGVPEYGCYVNLKRTVNFVVEDEALGTAFAVQMPAHGL 995
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RESULT 9
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XX
DE Sequence 33, Application US/08911312
CC Sequence 33, Application US/08911312
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim

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CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morlin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent In Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
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CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
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CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Elmhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 33:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1200 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1200 AA: 134322 MW: 7387257 CN:
SQ
Query Match 99.8%; Score 7096; DB 14; Length 1200;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Tue Jun 29 09:37:52 1999

US-08-951-733-14.rap

Page 11

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OY		842	IRGSKSYVOCOGIPOGSIISTLLCSLCIGDMENKLPAGIRRDGILLRLVDDFLVTPPLTH	90.1
Db		948	AKTFLRTLIVRGVPEYGCYVNLRKTVNPNRVDEALGTAIFYQMABHL	99.5
OY		902	AKTFLRTLIVRGVPEYGCYVNLRKTVNPNRVDEALGTAIFYQMABHL	94.9
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CC	Sequence 600, Application US/08974549			
CC	GENERAL INFORMATION:			
CC	APPLICANT: Gech, Thomas R.			
CC	APPLICANT: Lingner, Joachim			
CC	APPLICANT: Nakamura, Toru			
CC	APPLICANT: Morin, Gregg B.			
CC	APPLICANT: Chapman, Karen B.			
CC	APPLICANT: Harley, Calvin B.			
CC	APPLICANT: Andrews, William H.			
CC	TITLE OF INVENTION: Human Telomerase Catalytic Subunit			
CC	NUMBER OF SEQUENCES: 726			
CC	CORRESPONDENCE ADDRESS:			

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CC ADDRESS: Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/974,549
CC FILING DATE: 19-NOV-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/911,312
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17618
CC FILING DATE: 01-OCT-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17885
CC FILING DATE: 01-OCT-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph Ted
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 01389-00261005
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 600:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1285 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: Protein
CC LOCATION: 1..1285
CC OTHER INFORMATION: /note="fusion protein composed of
CC OTHER INFORMATION: enterokinase cleavable, His tagged
CC OTHER INFORMATION: thiorodoxin moiety and full length hTrp"
CC SEQUENCE 1285 AA: 143529 MW: 8445280 CN:

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QY 2 ASGRCVLLRTWEALAPATPAMPAPRCRAVRSLSRSHREVLPATFVRRLGPOGRMLV 61
Db 193 QRGDPAPRALVAOCLVCPMDARPPAPSPFROYSCLEKELVARVLORLCERGANVLA 252
QY 62 QRGDPAPRALVAOCLVCPMDARPPAPSPFROYSCLEKELVARVLORLCERGANVLA 121
Db 253 GFALLDGRGPPREFFTSVRSYLPNTVTDALRGSGANGLLRRGGDVVHLHARCLAF 312
QY 122 GFALLDGRGPPREFFTSVRSYLPNTVTDALRGSGANGLLRRGGDVVHLHARCLAF 181
Db 313 VLVAPSCAYOVCGRPLYOLGATQARPPHAGSPRRRLGGERAMNHSVREAGVPLGLPAP 372
QY 182 VLVAPSCAYOVCGRPLYOLGATQARPPHAGSPRRRLGGERAMNHSVREAGVPLGLPAP 241
Db 373 GARRRGGSASLSLPKPRRGARPEPRTFYOGCSMAHPGRTGSPDRGCVSPAPRA 432
QY 242 GARRRGGSASLSLPKPRRGARPEPRTFYOGCSMAHPGRTGSPDRGCVSPAPRA 301
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QY 302 BEATSLLEGALGSTRHSHPVSGRHHAGPSTSRPRPMDTCCPPYATFKHLYSSGDK 361
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QY 422 HAOCYGYVLTHTHCPRLAAYVPAAGVCAKREKQGSVAAPBEEDTDPRRLVOLLROHSSPW 481
Db 613 QYGVGVRACTLRVLPVPGMGRHNRRLNTKFTISLQKNAKLSLOELTWMMSVRODAM 672
QY 482 QYGVGVRACTLRVLPVPGMGRHNRRLNTKFTISLQKNAKLSLOELTWMMSVRODAM 541
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QY 542 LRRSPGVCVPAAEHRLREELIAKFLHMLSVYVELLSFEFYTETTFOKNRLFEYRKS 601
Db 733 VMSKIQSIGIQHOLKRVOLRELSEAEVROHREARALLTSRLRFPKPDGLPIYNNMIV 792
QY 602 VMSKIQSIGIQHOLKRVOLRELSEAEVROHREARALLTSRLRFPKPDGLPIYNNMIV 661
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QY 662 VGARTFRREKRAERLTSVKALFVLANERARPPGLGASVGLDDIRAMRTFVLARVA 721
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Db 973 IRGKSYVOCGIGIPOGSIITLLCSLCYGDMEKMLFAGIRRODGLRLVDDDFLLVPHLTH 1032
QY 842 IRGKSYVOCGIGIPOGSIITLLCSLCYGDMEKMLFAGIRRODGLRLVDDDFLLVPHLTH 901
Db 1033 AKTFRLTLVRGVPEXGVVNLAKTYVNPVEDEALGTAFAVQMPAHGL 1080
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RESULT 12
ID US-08-911-312-32 STANDARD: PRT: 1285 AA.

AC xxxxxx

DE Sequence 32, Application US/08911312
CC Sequence 32, Application US/08911312

CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent In Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 32:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1285 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1285 AA: 143529 MW: 8449280 CN:
Query Match 99.8%; Score 7096; DB 14; Length 1285;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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QY 2 ASGRCVLLRTWEALAPATPAMPAPRCRAVRSLSRSHREVLPATFVRRLGPOGRMLV 61
Db 193 QRGDPAPRALVAOCLVCPMDARPPAPSPFROYSCLEKELVARVLORLCERGANVLA 252

QY 62 QRGDPAFRAVAOCVCPWDARPPAAPSFRQVSCLEKELVAVLQRLCERGAKNVLA 121
Db 253 GFALLDARGGPPPAFTTSVSVSTYPNTVTDALRSGGANGLLRRVGDVLYHLARCALF 312
QY 122 GFALLDARGGPPPAFTTSVSVSTYPNTVTDALRSGGANGLLRRVGDVLYHLARCALF 181
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QY 182 VLVAPSCAYOCGPPPLVOLGAATOARPPHASGPPRRRLGCEPAMNHSVREGVPLGLPAP 241
Db 373 GARRRGGSASRLPLPKRRRGGAAPERPRTVQOGSMAPERTRGSDRGCVVSPAPPA 432
QY 242 GARRRGGSASRLPLPKRRRGGAAPERPRTVQOGSMAPERTRGSDRGCVVSPAPPA 301
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Db 793 VGATFREREKAERLTSVKALFSVLANTERARRPGLGASVGLDDIHRAMTFYLRVA 852
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CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Hartley, Calvin
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION NUMBER: US/08/912,951
CC APPLICATION DATA:
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
CC APPLICATION DATA:
CC FILING DATE: 06-MAY-1997
CC APPLICATION NUMBER: US 08/851,843
CC CLASSIFICATION: 435
CC APPLICATION DATA:
CC FILING DATE: 25-APR-1997
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 18-APR-1997
CC CLASSIFICATION: 435
CC APPLICATION DATA:
CC FILING DATE: 01-OCT-1996
CC APPLICATION NUMBER: US 08/724,643
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002600US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 314:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1285 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1285 AA; 143529 MW; 8449280 CN;
SQ
Query Match 99.8%; Score 7096; DB 14; Length 1285;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 133 ASTORCVLLRTWEALAPATPAPRAAPRAVRSLLRSHYREVLPATFVRRLGPOGWRVLY 192
QY 2 ASGQRCVLLRTWEALAPATPAPRAAPRAVRSLLRSHYREVLPATFVRRLGPOGWRVLY 61
Db 193 QRGDPAFRAVAOCVCPWDARPPAAPSFRQVSCLEKELVAVLQRLCERGAKNVLA 252
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QY	482	OYVEFYVACLRRLVPPCLMKSRRNERFELNTEKPSLCKHAKLSLOELTWKMSVDCAW	541
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QY	542	LRRSPGVGCVPAAEHLRBEELAKFLHMLMSVYVVELLSFFYVETTPQKNRLFYFRKS	601
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QY	602	VMSKLOSTIGIRONHKRYOLRELSAEVYRQHRKARPALLTSRLRFTKPPGGLRPIYNNMDY	661
Db	793	VGARTFRRERKRAELTSRVALFSVLYNEHARRPGLGASVGLDIDHRAWTFVLRYRA	852
QY	662	VGARTFRRERKRAELTSRVALFSVLYNEHARRPGLGASVGLDIDHRAWTFVLRYRA	721
Db	853	QDPPELIFYKVDVTGAYDTIPDDRLETVIASIIRKQNTYCVRRIVAVOKAAGHVRAAF	912
QY	722	QDPPELIFYKVDVTGAYDTIPDDRLETVIASIIRKQNTYCVRRIVAVOKAAGHVRAAF	781
Db	913	KSHSTLTLDOPYRQOVVAHLOETSPLRDAVVEIOSSSLNEASSGLFDFVLFMCHHAVR	972
QY	782	KSHSTLTLDOPYRQOVVAHLOETSPLRDAVVEIOSSSLNEASSGLFDFVLFMCHHAVR	841
Db	973	IRGKSYVQCGIPQGSILSTLCLSCYCGDMENKLFAGIRRDGILLRLVDDFLVPLHLTH	1033
QY	842	IRGKSYVQCGIPQGSILSTLCLSCYCGDMENKLFAGIRRDGILLRLVDDFLVPLHLTH	901
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QY	902	AKTFLRFLVGVPEYGCVVNLAKTYVNEPVEDALGTFVQMPAHGL 949	
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ID	US-08-911-312A-32	STANDARD:	PRT: 1285 AA.
AC	xxxxxx		
DT			
XX			
DE	Sequence 32, Application US/08911312A		
XX			
CC	Sequence 32, Application US/08911312A		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Cech, Thomas R.		
CC	APPLICANT: Lingner, Joachim		
CC	APPLICANT: Nakamura, Toru		
CC	APPLICANT: Chapman, Karen B.		
CC	APPLICANT: Morin, Gregg B.		
CC	APPLICANT: Harley, Calvin B.		
CC	APPLICANT: Andrews, William		

```

CC      TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC      NUMBER OF SEQUENCES: 171
CC      CORRESPONDENCE ADDRESS:
CC      ADDRESSEE: Townsend and Townsend and Crew LLP
CC      STREET: Two Embarcadero Center, Eighth Floor
CC      CITY: San Francisco
CC      STATE: California
CC      COUNTRY: USA
CC      ZIP: 94111-3834
CC      COMPUTER READABLE FORM:
CC      MEDIUM TYPE: Floppy disk
CC      COMPUTER: IBM PC compatible
CC      OPERATING SYSTEM: PC-DOS/MS-DOS
CC      SOFTWARE: PatentIn Release #1.0, Version #1.30
CC      CURRENT APPLICATION DATA:
CC      APPLICATION NUMBER: US/08/911,312A
CC      FILING DATE: 14-AUG-1997
CC      CLASSIFICATION: 536
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/724,643
CC      FILING DATE: 01-OCT-1996
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/844,419
CC      FILING DATE: 18-APR-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/846,017
CC      FILING DATE: 25-APR-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/851,843
CC      FILING DATE: 06-MAY-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/854,050
CC      FILING DATE: 09-MAY-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/912,951
CC      FILING DATE: 14-AUG-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/915,503
CC      FILING DATE: 14-AUG-1997
CC      ATTORNEY/AGENT INFORMATION:
CC      NAME: Einhorn, Gregory P.
CC      REGISTRATION NUMBER: 38,440
CC      REFERENCE/DOCKET NUMBER: 013389-002500DS
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE: (415) 576-0200
CC      TELEFAX: (415) 576-0300
CC      INFORMATION FOR SEQ ID NO: 32:
CC      SEQUENCE CHARACTERISTICS:
CC      LENGTH: 1285 amino acids
CC      TYPE: amino acid
CC      STRANDEDNESS:
CC      TOPOLOGY: linear
CC      MOLECULE TYPE: protein
CC      SEQUENCE 1285 AA; 143529 MW; 8449280 CN;
SQ
Db      Query Match 99.8%; Score 7096; DB 14; Length 1285;
      Best Local Similarity 99.9%; Pred. No. 0.00e+00;
      Matches 947; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db      133 ASTGRCVLLRTWELALATATPMRPARPCRAVRSLSRSHREYVLPATFVRRLLPOGGRILV 192
      ||
      2 ASGRCVLLRTWELALATATPMRPARPCRAVRSLSRSHREYVLPATFVRRLLPOGGRILV 61
      ||
Db      193 QRGPPAFAFRAIVAOCLVCPMDAPAPPAASFRQVSCLELVAVRYLQLCERGAKNVLA 252
      ||
      62 QRGPPAFAFRAIVAOCLVCPMDAPAPPAASFRQVSCLELVAVRYLQLCERGAKNVLA 121
      ||
Db      253 GFALIDGARSGPPAFTTSYRSYLPNTVTVALRSGAMGLLRVGGDVLYVHLLRCALF 312
      ||
      122 GFALIDGARSGPPAFTTSYRSYLPNTVTVALRSGAMGLLRVGGDVLYVHLLRCALF 161
      ||
Db      313 VLVAPSCAYOVCGPPLYOLGAATGARPDPASGPRRLGGERAMNHSVREAGVPLGIPAP 372
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QY 182 VLAVSCAYOYCGPPLVOLGAATOARPPPHASGPRRLGECERAMNHSYREAGVPLGLPAP 241
Db 373 GARRRGASASLPLKPRRRGAAPERTPVGQGSMAHPCGTRGSPDRGFCVSPAPPA 432
QY 242 GARRRGASASLPLKPRRRGAAPERTPVGQGSMAHPCGTRGSPDRGFCVSPAPPA 301
Db 433 EEARTEGALSSTGSHSHSVGRHSHAGPSTSRPRPMDTCCPPYATKTFIYSSGDK 492
QY 302 EEARTEGALSSTGSHSHSVGRHSHAGPSTSRPRPMDTCCPPYATKTFIYSSGDK 361
Db 493 QLRPSFLSLSRPLTGARLVEITFIIGSRPMPCPTPRRLPRLPORVQOMPLFELLGN 552
QY 362 QLRPSFLSLSRPLTGARLVEITFIIGSRPMPCPTPRRLPRLPORVQOMPLFELLGN 421
Db 553 HAOCPIYGLTHTCPRLRAAVTPAGVCAKREKQGSVAAPDEEDIDPRRLVOLLROHSSPW 612
QY 422 HAOCPIYGLTHTCPRLRAAVTPAGVCAKREKQGSVAAPDEEDIDPRRLVOLLROHSSPW 481
Db 613 QYGFVFRACLRVLPVPGMGRHNRRLRMTKFIISLGKNAKLSLOELTWMKSVRDCAM 672
QY 482 QYGFVFRACLRVLPVPGMGRHNRRLRMTKFIISLGKNAKLSLOELTWMKSVRDCAM 541
Db 673 LRRSPGVCAVPAEHRRLREELIAKFLHMLMSYVVELRSEFYVTEITFOKNRLEFYRKS 732
QY 542 LRRSPGVCAVPAEHRRLREELIAKFLHMLMSYVVELRSEFYVTEITFOKNRLEFYRKS 601
Db 733 VWSKIQSIGIQHOKRVLORRELSAEVQOHREARPAITLSRLRFIPKPDGLPIVNM DY 792
QY 602 VWSKIQSIGIQHOKRVLORRELSAEVQOHREARPAITLSRLRFIPKPDGLPIVNM DY 661
Db 793 VGARTFRERKRAERLTSVKALFSVLANTERARBPGLGASVGLDDIHRAMTFVLRLRA 852
QY 662 VGARTFRERKRAERLTSVKALFSVLANTERARBPGLGASVGLDDIHRAMTFVLRLRA 721
Db 853 QDPPELFEVVDYVGAVDITIPODRLTEVIAIIRPQNTYCVRAYVQKAAHGVRAAF 912
QY 722 QDPPELFEVVDYVGAVDITIPODRLTEVIAIIRPQNTYCVRAYVQKAAHGVRAAF 781
Db 913 KSHVSTLDLDOPYMAQFAHLOETSPLDVAVYIEOSSSLNEASGLFVFLRPMCHNAVR 972
QY 782 KSHVSTLDLDOPYMAQFAHLOETSPLDVAVYIEOSSSLNEASGLFVFLRPMCHNAVR 841
Db 973 IRGKSYVOCOGIPGSIITLCSICVYDGMENKLPAGIRPDGLLRVDDFLVPHLTH 1032
QY 842 IRGKSYVOCOGIPGSIITLCSICVYDGMENKLPAGIRPDGLLRVDDFLVPHLTH 901
Db 1032 AKTELRLTVRGVPEYXCVNLRKTYVNFVVEDEALGTAFFVQMPAHGL 1080
QY 902 AKTELRLTVRGVPEYXCVNLRKTYVNFVVEDEALGTAFFVQMPAHGL 949

RESULT 15
ID US-08-911-312-55 STANDARD: PRT: 1407 AA.
AC xxxxxx
DT
XX
XX
XX
XX
Sequence 55, Application US/08911312
CC Sequence 55, Application US/08911312
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Hatley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP

CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC OPERATING SYSTEM: IBM PC compatible
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-Aug-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-Oct-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-Apr-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-Apr-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-May-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-May-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-Aug-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-Aug-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 55:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1407 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1407 AA; 15766 MW; 10134798 CN;
SO
Query Match 99.6%; Score 7086; DB 14; Length 1407;
Best Local Similarity 99.8%; Pred. No. 0.00e+00;
Matches 946; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Db 255 ASTORCVLLRTWEALAPATPMPAPRCRAVRSLSIRSHYREVLPATFVRRLGPGWRLV 314
QY 2 ASGQRVLLRTWEALAPATPMPAPRCRAVRSLSIRSHYREVLPATFVRRLGPGWRLV 61
Db 315 ORGDPAAFRALVACLVCPWDARPPAPSFROVSCLEKELVARVLOLRCERGAENVLAF 374
QY 62 ORGDPAAFRALVACLVCPWDARPPAPSFROVSCLEKELVARVLOLRCERGAENVLAF 121
Db 375 GFALLDARGGPPAFTTSVRSYLPNTVTDALRSGAGMLLRVGGDVLYHLLARCALF 434
QY 122 GFALLDARGGPPAFTTSVRSYLPNTVTDALRSGAGMLLRVGGDVLYHLLARCALF 181
Db 435 VLAVSCAYOYCGPPLVOLGAATOARPPPHASGPRRLGECERAMNHSYREAGVPLGLPAP 494
QY 182 VLAVSCAYOYCGPPLVOLGAATOARPPPHASGPRRLGECERAMNHSYREAGVPLGLPAP 241
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QY 242 GARRRGSA\$RSLPLKRRPRRGAAPERTPVGOG\$WAHPGRTGSPDRGFCVVS\$PARPA 301

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QY 362 QLRPSFLL\$SRSLRGAR\$LVETIFLG\$RPM\$GTPRRLPRLPQRYWOMRPLFLELLGN 421

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QY 422 HAOC\$PYVLKTHCPLRAA\$TPA\$GVCAREK\$PG\$SVAAP\$EEDTDPRRLVQLR\$HSSPM 481

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QY 482 QYVGFVACLR\$RLVPG\$LMG\$SRHNER\$RLNTK\$FISLG\$HAKLSLOELTWKMSV\$RDCAW 541

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QY 602 VMSK\$LOSIGIR\$QHLKRVOLRELSEAEVROHREAR\$PALIT\$RLR\$FIP\$KPDGLRPIVNM\$DYV 661

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QY 662 V\$GART\$RREK\$RARELTSRVKALF\$SVLNYERARR\$PGLIGASV\$LGDDIHRAMRTFVL\$RVRA 721

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Db 1035 K\$HVS\$TLTDLQPYMROFVAHLOET\$PLRDAVVI\$E\$OSSSLNEASSGLF\$DVFLRFMCH\$H\$AVR 1094

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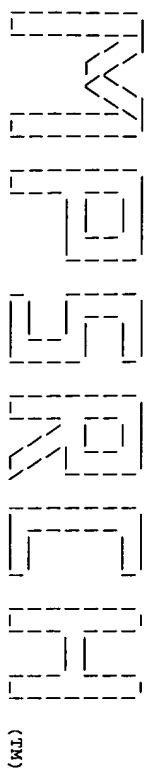
Db 1095 IRGK\$SYVOCGIGIP\$GSL\$TL\$LC\$SLCYGDMENKLFAGIR\$DGLLRLVDDFL\$VTPH\$LTH 1154

QY 842 IRGK\$SYVOCGIGIP\$GSL\$TL\$LC\$SLCYGDMENKLFAGIR\$DGLLRLVDDFL\$VTPH\$LTH 901

Db 1155 AKT\$FLR\$TLV\$GV\$PEY\$GCVNL\$RKT\$VNF\$PVE\$DEALG\$TAF\$QMPA\$HGL 1202

QY 902 AKT\$FLR\$TLV\$GV\$PEY\$GCVNL\$RKT\$VNF\$PVE\$DEALG\$TAF\$QMPA\$HGL 949

Search completed: Tue Jun 27 15:03:02 2000
Job time : 154 secs.



Release 3.1A John F. Collins, Biocomputing Research Unit.
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MPsrch_un n.a. - n.a. database search, using Smith-Waterman algorithm

Run on: Tue Jun 27 18:32:43 2000; MasPar time 5297.94 Seconds

Tabular output not generated. 1358.270 Million cell updates/sec

Title: >US-08-951-733-19
Description: (1-3798) from US08951733.seq
Perfect Score: 3798
N.A. Sequence: 1 CCACCGCTCCGGGACGCT.....GCATATGTCATCCCTGAT 3798
Comp: GGTGGCAGGCGCCGTGCGCA.....CCTATACGATAGGGGACTA

Scoring table: TABLE default

Gap 6

Mmatch STD : Dbase 0; Query 0

Searched: 2868244 seqs, 947344977 bases x 2

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database:

n-pending
1:P9 2:06000 3:06001 4:06002A 5:06002B 6:06003A 7:06003B
8:06004A 9:06004B 10:06005 11:06006 12:06007 13:06008A
14:06008B 15:06008C 16:06009A 17:06009B 18:06010A
19:06010B 20:06011 21:06012 22:07 23:080 24:081A 25:081B
26:081C 27:082A 28:082B 29:082C 30:083A 31:083B 32:084A
33:084B 34:084C 35:085 36:086 37:087A 38:087B 39:087C
40:088A 41:088B 42:088C 43:088D 44:089A 45:089B 46:089C
47:089D 48:089E 49:090A 50:090B 51:090C 52:091A 53:091B
54:092A 55:092B 56:092C 57:092D 58:092E 59:092F
60:092G

Statistics: Mean 11.508; Variance 4.082; scale 2.819

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	3798	100.0	3798 46	US-08-951-	Sequence 19, Applicat	0.00e+00
2	3787	99.7	7029 44	US-08-911-	Sequence 1, Applicat	0.00e+00
3	3787	99.7	7029 44	US-08-911-	Sequence 1, Applicat	0.00e+00
4	3784	99.6	4015 57	PCT-US99-0	Sequence 1, Applicat	0.00e+00
5	3784	99.6	4015 42	US-08-854-	Sequence 224, Applicat	0.00e+00
6	3784	99.6	4015 57	PCT-US99-0	Sequence 1, Applicat	0.00e+00
7	3784	99.6	4015 50	US-09-052-	Sequence 1, Applicat	0.00e+00
8	3784	99.6	4015 44	US-08-912-	Sequence 1, Applicat	0.00e+00
9	3784	99.6	4015 57	PCT-US99-0	Sequence 1, Applicat	0.00e+00
10	3784	99.6	4015 52	US-09-128-	Sequence 1, Applicat	0.00e+00
11	3784	99.6	4015 50	US-09-052-	Sequence 1, Applicat	0.00e+00

12	3784	99.6	4015 47	US-08-974-	Sequence 1, Applicat	0.00e+00
13	3781	99.6	4023 49	US-09-026-	Sequence 35, Applicat	0.00e+00
14	3778	99.5	4037 47	US-08-974-	Sequence 343, Applicat	0.00e+00
15	3725	98.1	3964 60	US-09-108-	Sequence 1, Applicat	0.00e+00
16	3661	96.4	4029 47	US-08-974-	Sequence 192, Applicat	0.00e+00
17	3661	96.4	4029 42	US-08-851-	Sequence 173, Applicat	0.00e+00
18	3661	96.4	4029 42	US-08-854-	Sequence 173, Applicat	0.00e+00
19	3477	91.5	3918 60	US-09-108-	Sequence 45, Applicat	0.00e+00
20	3392	89.3	3396 60	US-09-108-	Sequence 40, Applicat	0.00e+00
21	3261	85.9	4022 60	US-09-108-	Sequence 75, Applicat	0.00e+00
22	3176	83.6	3500 60	US-09-108-	Sequence 63, Applicat	0.00e+00
23	3157	83.1	3362 60	US-09-108-	Sequence 43, Applicat	0.00e+00
24	2941	77.4	3466 60	US-09-108-	Sequence 71, Applicat	0.00e+00
25	2912	76.7	7688 60	US-09-108-	Sequence 89, Applicat	0.00e+00
26	2905	76.5	3326 60	US-09-108-	Sequence 49, Applicat	0.00e+00
27	2903	76.4	7797 60	US-09-108-	Sequence 88, Applicat	0.00e+00
28	2848	75.0	2848 46	US-08-951-	Sequence 13, Applicat	0.00e+00
29	2843	74.9	3069 60	US-09-108-	Sequence 41, Applicat	0.00e+00
30	2689	70.8	3432 60	US-09-108-	Sequence 83, Applicat	0.00e+00
31	2627	69.2	3173 60	US-09-108-	Sequence 67, Applicat	0.00e+00
32	2591	68.2	3033 60	US-09-108-	Sequence 47, Applicat	0.00e+00
33	2510	66.1	3855 44	US-08-911-	Sequence 18, Applicat	0.00e+00
34	2510	66.1	3855 44	US-08-911-	Sequence 18, Applicat	0.00e+00
35	2510	66.1	3855 44	US-08-974-	Sequence 4, Applicat	0.00e+00
36	2510	66.1	3855 44	US-08-912-	Sequence 4, Applicat	0.00e+00
37	2375	62.5	3137 60	US-09-108-	Sequence 79, Applicat	0.00e+00
38	2289	60.3	2541 60	US-09-108-	Sequence 38, Applicat	0.00e+00
39	2073	54.6	2645 60	US-09-108-	Sequence 59, Applicat	0.00e+00
40	2060	54.2	7615 60	US-09-108-	Sequence 87, Applicat	0.00e+00
41	1951	51.4	2041 60	US-09-108-	Sequence 36, Applicat	0.00e+00
42	1906	50.2	3451 47	US-08-974-	Sequence 721, Applicat	0.00e+00
43	1892	50.1	3396 47	US-08-974-	Sequence 638, Applicat	0.00e+00
44	1897	49.9	3396 47	US-08-974-	Sequence 638, Applicat	0.00e+00
45	1766	46.5	2031 60	US-09-108-	Sequence 34, Applicat	0.00e+00

ALIGNMENTS

RESULT 1
US-08-951-733-19 STANDARD; DNA; UNC; 3798 BP.
xxxxxx
DE Sequence 19, Application US/08951733
CC Sequence 19, Application US/08951733
CC GENERAL INFORMATION:
CC APPLICANT: Harrington, Lea A.
CC APPLICANT: Robinson, Murray O.
CC TITLE OF INVENTION: NOVEL GENES ENCODING TELOMERASE PROTEINS
CC NUMBER OF SEQUENCES: 44
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Amgen Inc.
CC STREET: One Amgen Center Drive
CC CITY: Thousand Oaks
CC STATE: CA
CC COUNTRY: USA
CC ZIP: 91320-1789
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/951,733
CC FILING DATE: 16-OCT-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/873,039
CC FILING DATE: 11-JUN-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/751,189
CC FILING DATE: 15-NOV-1996
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Oleski, Nancy A.

REGISTRATION NUMBER: 34,688
REFERENCE/DOCKET NUMBER: A-433B
TELECOMMUNICATION INFORMATION:
TELEPHONE: (805) 447-6504
TELEFAX: (805) 499-8011
INFORMATION FOR SEQ ID NO: 19:
SEQUENCE CHARACTERISTICS:
LENGTH: 3798 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
SEQUENCE 3798 BP: 613 A; 1310 C; 1213 G; 662 T; 0 OTHER.

Query Match 100.0%; Score 3798; DB 46; Length 3798;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 3798; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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OY 1 CCAGGCGTCGGGGGAGCGCTGCTGCTGCTGCTGCGACGTCGGGAAAGCCCGGCGCCAC 60
Db 61 CCGCGGATGCGCGGCGGCTCCCGCTGCGAGCGTCGCTCCCTGCTGCGACGCACTA 120
OY 61 CCGCGGATGCGCGGCGGCTCCCGCTGCGAGCGTCGCTCCCTGCTGCGACGCACTA 120
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Db 541 CTTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 600
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Db 601 CCGGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 660
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Db 841 CCGCGGAGGAGCGCGTGTGAGCCGAGTACCCGCTGCTGCTGCTGCTGCTGCTGCTGCT 900
OY 841 CCGCGGAGGAGCGCGTGTGAGCCGAGTACCCGCTGCTGCTGCTGCTGCTGCTGCTGCT 900
Db 901 CCGCGGAGGAGCGCGCTTGTGAGGCGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 960
OY 901 CCGCGGAGGAGCGCGCTTGTGAGGCGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 960
Db 961 CGTGGGCGCGGAGCAGCAGCGGCGCGCCCATCCATCCGCGGCGCAGCAGTCCCTGGGA 1020
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Db 1021 CAGCGCTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1080
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Db 1081 GGAGCAGTGTGCGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1140
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Db 1141 GAGGCTGTGAGACATCTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1200
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Db 1741 GTCTTTCTTTTATGTCAAGGAGACACGCTTCAAAAGACAGGCTCTTTTCTAACGGAA 1800
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Db 1861 GCGGAGACTGTGCGAAGCAGAGTCAAGGAGATCGGGAAGCCAGGCGCCCGCTGCTGAC 1920
OY 1861 GCGGAGACTGTGCGAAGCAGAGTCAAGGAGATCGGGAAGCCAGGCGCCCGCTGCTGAC 1920

D 1921 GTCCAGACTCCGCTTCAATCCCAAGCCCTGACGGGCTGCGCCGATTTGAAACATGACTA 1980
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Q 1921 GTCCAGACTCCGCTTCAATCCCAAGCCCTGACGGGCTGCGCCGATTTGAAACATGACTA 1980
D 1981 CGTCGTGGAGACCAAGAGAGTTCCCGAGAGAAAGAGGCGCGAGGCTCCACCTGAGGGT 2040
| | | | |
Q 1981 CGTCGTGGAGACCAAGAGAGTTCCCGAGAGAAAGAGGCGCGAGGCTCCACCTGAGGGT 2040
D 2041 GAAGGCACTGTTCAGCGCTCTCACTACAGAGCGGGCGCGCGCGCTCTCTGGGGC 2100
| | | | |
Q 2041 GAAGGCACTGTTCAGCGCTCTCACTACAGAGCGGGCGCGCGCGCTCTCTGGGGC 2100
D 2101 CTCGTGTGTGGGCTTGAGACGATTCACAGAGGCTGCGGACCTTCGTCTGCTGTGCG 2160
| | | | |
Q 2101 CTCGTGTGTGGGCTTGAGACGATTCACAGAGGCTGCGGACCTTCGTCTGCTGTGCG 2160
D 2161 GGCCGAGAGCCGCGGCTGAGCTGTACTTGTCAAGGTGATGAGAGGGGCTTACGA 2220
| | | | |
Q 2161 GGCCGAGAGCCGCGGCTGAGCTGTACTTGTCAAGGTGATGAGAGGGGCTTACGA 2220
D 2221 CACCATCCCCAGAGACAGGCTCACGGAGGTATGCGCCAGCATCATCAAAACCCAGAAC 2280
| | | | |
Q 2221 CACCATCCCCAGAGACAGGCTCACGGAGGTATGCGCCAGCATCATCAAAACCCAGAAC 2280
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ID US-08-911-312-1 STANDARD; DNA; UNC; 7029 BP.
AC xxxxxx
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DE Sequence 1, Application US/08911312
DC Sequence 1, Application US/08911312
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:

CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
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CC APPLICATION NUMBER: US 08/846,017
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CC APPLICATION NUMBER: US 08/851,843
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CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
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CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIORITY APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Binhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 1:
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CC TYPE: nucleic acid
CC STRANDEDNESS: single
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Query Match 99.7%; Score 3787; DB 44; Length 7029;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
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CC	GENERAL INFORMATION:		
CC	APPLICANT: Cech, Thomas R.		
CC	APPLICANT: Lingner, Joachim		
CC	APPLICANT: Nakamura, Toru		
CC	APPLICANT: Chapman, Karen B.		
CC	APPLICANT: Morin, Gregg B.		
CC	APPLICANT: Harley, Calvin B.		
CC	APPLICANT: Andrews, William		
CC	TITLE OF INVENTION: Telomerase Reverse Transcriptase		
CC	NUMBER OF SEQUENCES: 171		
CC	CORRESPONDENCE ADDRESS:		
CC	ADDRESSEE: Townsend and Townsend and Crew LLP		
CC	STREET: Two Embarcadero Center, Eighth Floor		
CC	CITY: San Francisco		
CC	STATE: California		
CC	COUNTRY: USA		
CC	ZIP: 94111-3834		
CC	COMPUTER READABLE FORM:		
CC	MEDIUM TYPE: Floppy disk		
CC	COMPUTER: IBM PC compatible		
CC	OPERATING SYSTEM: PC-DOS/MS-DOS		
CC	SOFTWARE: PatentIn Release #1.0, Version #1.30		
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CC	APPLICATION NUMBER: US/08/911,312A		
CC	FILING DATE: 14-AUG-1997		
CC	CLASSIFICATION: 536		
CC	PRIOR APPLICATION DATA:		
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CC	FILING DATE: 01-OCT-1996		
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CC      FILING DATE:      09-MAY-1997
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CC      APPLICATION NUMBER:  US 08/915,503
CC      FILING DATE:      14-AUG-1997
CC      ATTORNEY/AGENT INFORMATION:
CC      NAME:  Einhorn, Gregory P.
CC      REGISTRATION NUMBER:  38,440
CC      REFERENCE/DOCKET NUMBER:  015389-002500US
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE:  (415) 576-0200
CC      TELEFAX:  (415) 576-0300
CC      INFORMATION FOR SEQ ID NO:  1:
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Q	1984	CGTGGGAGCCAGAAAGCTTCCGCGAGAAAAAGAGGGCCGAGCTCTCAGCTCGAAGGTAA	2043
D	2758	GGCACTGTTCAGCTGCTCTCAACTACGAGCGGGGGCGGCCCGGCTCTTGCGGCGCTC	2817
Q	2044	GGCACTGTTCAGCTGCTCTCAACTACGAGCGGGGGCGGCCCGGCTCTTGCGGCGCTC	2103
D	2818	TGTCTGTGGGCGCTGAGCAGATATACACAGGGCGTGGCGACCTTCTGTCTGTCTGTGCGGG	2877
Q	2104	TGTCTGTGGGCGCTGAGCAGATATACACAGGGCGTGGCGACCTTCTGTCTGTCTGTGCGGG	2163
D	2878	CCAGAGACCCCGCGCTCAGAGTGTACTTTGTCAAGGTGATGTGAAGGGGGCGCTACGAC	2937
Q	2164	CCAGAGACCCCGCGCTCAGAGTGTACTTTGTCAAGGTGATGTGAAGGGGGCGCTACGAC	2222
D	2938	CATCCGCCAGAGACAGGCTCAACGAGAGGTCAATCGCCAGCATCATCAAAACCCAGAACAGTA	2997
Q	2224	CATCCGCCAGAGACAGGCTCAACGAGAGGTCAATCGCCAGCATCATCAAAACCCAGAACAGTA	2283
D	2998	CTGCGTGTCTGCTGATATCCCTGGTCCAGAAAGCGCCGCTAGGGCAGTCTCCGAAGGCTT	3057
Q	2284	CTGCGTGTCTGCTGATATCCCTGGTCCAGAAAGCGCCGCTAGGGCAGTCTCCGAAGGCTT	2343
D	3058	CAAGAGCCAGCTCTCTACCTTTGACAGACCTCCAGCCGATATGCGACAGTTGTTGGCTCA	3117
Q	2344	CAAGAGCCAGCTCTCTACCTTTGACAGACCTCCAGCCGATATGCGACAGTTGTTGGCTCA	2403
D	3118	CTGTGAGAGACAGCCCGCTGAGGGATGCGCTGTATCGACAGAGGCTCTCTCCGTAA	3177
Q	2404	CTGTGAGAGACAGCCCGCTGAGGGATGCGCTGTATCGACAGAGGCTCTCTCCGTAA	2463
D	3178	TGAGGCGAGAGTGGGCTCTTTCAGAGCTTTCCTACAGCTTCAATGTGCACACAGCGGTGG	3237
Q	2464	TGAGGCGAGAGTGGGCTCTTTCAGAGCTTTCCTACAGCTTCAATGTGCACACAGCGGTGG	2522
D	3238	CATCAGGGGCAAGTCTTACGTCACAGTGCACAGGGGATCCGCAAGGGCTCTCATCTTCAC	3297
Q	2524	CATCAGGGGCAAGTCTTACGTCACAGTGCACAGGGGATCCGCAAGGGCTCTCATCTTCAC	2583
D	3298	GCTGCTCTGCAAGCTGTGTCTACGGCCCATGTGGAACAAGCTGTTTGGGGGATATTCGGG	3357
Q	2584	GCTGCTCTGCAAGCTGTGTCTACGGCCCATGTGGAACAAGCTGTTTGGGGGATATTCGGG	2643
D	3358	GGAGCGGCTGCTCTCGCTTGGTGTGATGATTTCTTTGTGGTACACCTCAGCTCAACCA	3417
Q	2644	GGAGCGGCTGCTCTCGCTTGGTGTGATGATTTCTTTGTGGTACACCTCAGCTCAACCA	2703
D	3418	CGCGAAAACCTTCTCAAGACCTCGTCCGAGGTGTCTCTGAGATAGGCTGCTGGTGTAA	3477
Q	2704	CGCGAAAACCTTCTCAAGACCTCGTCCGAGGTGTCTCTGAGATAGGCTGCTGGTGTAA	2763

Db	3478	CTTCGGGAAGCACTGGTGAACCTCCCTGTAGAAGACGAGGGCCGTGGGTGGCAGGGCTT	3537
Oy	2764	CTTCGGGAAGCACTGGTGAACCTCCCTGTAGAAGACGAGGGCCGTGGGTGGCAGGGCTT	2823
Db	3538	TGTTTCAGATGCGGGCCACAGGGCCATTATCCCTGGTGGGCGCTGTCTGTGATACCGGAC	3597
Oy	2824	TGTTTCAGATGCGGGCCACAGGGCCATTATCCCTGGTGGGCGCTGTCTGTGATACCGGAC	2883
Db	3598	CGTGGAGGTGCGAGAGGCACATACACGCTATGCGCGGACCTCATCAGAGCCAGTCTAC	3657
Oy	2884	CGTGGAGGTGCGAGAGGCACATACGCTATGCGCGGACCTCATCAGAGCCAGTCTAC	2943
Db	3658	CTTCAACCGCGGCTTTCAAAGCTGGGAGGAACATGCGCTCCAAACTCTTTGGGGTTTCG	3717
Oy	2944	CTTCAACCGCGGCTTTCAAAGCTGGGAGGAACATGCGCTCCAAACTCTTTGGGGTTTCG	3003
Db	3718	GCTGAAGTGTACAGACCTGTTTCTTGATTTGCAGGTGAACAGCTTCAGAGCGTGTGAC	3777
Oy	3004	GCTGAAGTGTACAGACCTGTTTCTTGATTTGCAGGTGAACAGCTTCAGAGCGTGTGAC	3063
Db	3778	CAACATCTACAAAGATCTCTCTGCTGCAGGGGCTACAGATTTCACGATGTGTCTGACT	3837
Oy	3064	CAACATCTACAAAGATCTCTCTGCTGCAGGGGCTACAGATTTCACGATGTGTCTGACT	3123
Db	3838	CCCATTTTCATCAGCAAGTTTGGAAAGACCCACATTTTTCTGCGGCTATCTGACAC	3897
Oy	3124	CCCATTTTCATCAGCAAGTTTGGAAAGACCCACATTTTTCTGCGGCTATCTGACAC	3183
Db	3898	GGCCCTCCCTGTGATCTCCATCCATCCGAAAGCAGCAAGCAGAGGATGTCCTGGGGCCAA	3957
Oy	3184	GGCCCTCCCTGTGATCTCCATCCGAAAGCAGCAAGCAGAGGATGTCCTGGGGCCAA	3243
Db	3958	GGGGCGCGCCGCGCTCTGCGCTCCAGGGCGCTGACAGTGGCTGTGCCACAGCAATTCCT	4017
Oy	3244	GGGGCGCGCGCGCTCTGCGCTCCAGGGCGCTGACAGTGGCTGTGCCACAGCAATTCCT	3303
Db	4018	GCTCAAGTACTGTGAACACCGTGTACCTTACGTGCCACTTCCTGGGTCACTAGACACAC	4077
Oy	3304	GCTCAAGTACTGTGAACACCGTGTACCTTACGTGCCACTTCCTGGGTCACTAGACACAC	3363
Db	4078	CCAGACGACGTGATGSGAAAGCTCCCGGGGAGACGCTGACTGCGCTGGAGGCGCGAC	4137
Oy	3364	CCAGACGACGTGATGSGAAAGCTCCCGGGGAGACGCTGACTGCGCTGGAGGCGCGAC	3422
Db	4138	CAACCGGCGACTGCGCTCAAGACTTCAAGACCAATCTGTGACTGATGGCCACCGCCACAG	4197
Oy	3424	CAACCGGCGACTGCGCTCAAGACTTCAAGACCAATCTGTGACTGATGGCCACCGCCACAG	3483
Db	4198	CCAGGCGAGAGCGACACACGAGCGGCTGTACGCGCGGGCTCTATGCTCCAGGGAGGGA	4257
Oy	3484	CCAGGCGAGAGCGACACGAGCGGCTGTACGCGCGGGCTCTATGCTCCAGGGAGGGA	3543
Db	4258	GGGGGGGCGCCACACCGACGAGGCGCGACCGCTGGGAGTCTAGAGGCTGAGTATTTTGGC	4317
Oy	3544	GGGGGGGCGCCACACCGACGAGGCGCGACCGCTGGGAGTCTAGAGGCTGAGTATTTTGGC	3603
Db	4318	CGAGGCTGTGATGTCCGGGCTGAAGGCTGAGTGTCCGGCTGAAGGCTGACGACGTTCCAG	4377
Oy	3604	CGAGGCTGTGATGTCCGGGCTGAAGGCTGAGTGTCCGGCTGAAGGCTGACGACGTTCCAG	3663
Db	4378	CCAAAGGCTGATGTTCAGACACACCTGCGCTTCACTTCCCAACAGGCTGGCGGTCCGC	4437
Oy	3664	CCAAAGGCTGATGTTCAGACACACCTGCGCTTCACTTCCCAACAGGCTGGCGGTCCGC	3722
Db	4438	TCACACCCCAAGGCCAGCTTTTCTCTACACAGAGACCCGGCTTCCACTCCCCACATAGAGAT	4497
Oy	3724	TCACACCCCAAGGCCAGCTTTTCTCTCTACACAGAGACCCGGCTTCCACTCCCCACATAGAGAT	3783
Db	4498	AGTCATATCCCAAGAT 4512	
Oy	3784	AGTCATATCCCTGAT 3798	

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RESULT      4
ID          PCT-US99-07160-1 STANDARD; DNA; UNC; 4015 BP.
AC          xxxxxx
DT
DE          Sequence 1, Application PC/TUS9907160
CC          Sequence 1, Application PC/TUS9907160
CC          GENERAL INFORMATION:
CC          APPLICANT: Cech, Thomas R.
CC          APPLICANT: Lingner, Joachim
CC          APPLICANT: Nakamura, Toru
CC          APPLICANT: Chapman, Karen B.
CC          APPLICANT: Morin, Gregg B.
CC          APPLICANT: Harley, Calvin B.
CC          APPLICANT: Andrews, William H.
CC          APPLICANT: Genon Corporation
CC          APPLICANT: University Technology Corporation
CC          TITLE OF INVENTION: Antisense Compositions for Detecting and Inhibiting
CC          FILE REFERENCE: 015389-003610PC
CC          CURRENT APPLICATION NUMBER: PCT/US99/07160
CC          CURRENT FILING DATE: 1999-03-31
CC          EARLIER APPLICATION NUMBER: US 08/724,643
CC          EARLIER FILING DATE: 1996-10-01
CC          EARLIER APPLICATION NUMBER: US 08/844,419
CC          EARLIER FILING DATE: 1997-04-18
CC          EARLIER APPLICATION NUMBER: US 08/846,017
CC          EARLIER FILING DATE: 1997-04-25
CC          EARLIER APPLICATION NUMBER: US 08/851,843
CC          EARLIER FILING DATE: 1997-05-06
CC          EARLIER APPLICATION NUMBER: US 08/854,050
CC          EARLIER FILING DATE: 1997-05-09
CC          EARLIER APPLICATION NUMBER: US 08/911,312
CC          EARLIER FILING DATE: 1997-08-14
CC          EARLIER APPLICATION NUMBER: US 08/912,951
CC          EARLIER FILING DATE: 1997-08-14
CC          EARLIER APPLICATION NUMBER: US 08/915,503
CC          EARLIER FILING DATE: 1997-08-14
CC          EARLIER APPLICATION NUMBER: WO PCT/US97/17618
CC          EARLIER FILING DATE: 1997-10-01
CC          EARLIER APPLICATION NUMBER: WO PCT/US97/17885
CC          EARLIER FILING DATE: 1997-10-01
CC          EARLIER APPLICATION NUMBER: US 08/974,549
CC          EARLIER FILING DATE: 1997-11-19
CC          EARLIER APPLICATION NUMBER: US 08/974,584
CC          EARLIER FILING DATE: 1997-11-19
CC          EARLIER APPLICATION NUMBER: US 09/052,919
CC          EARLIER FILING DATE: 1998-03-31
CC          NUMBER OF SEQ ID NOS: 72
CC          SOFTWARE: PatentIn Ver. 2.0
CC          SEQ ID NO 1
CC          LENGTH: 4015
CC          TYPE: DNA
CC          ORGANISM: Homo sapiens
CC          FEATURE:
CC          NAME/KEY: CDS
CC          LOCATION: (56)..(3454)
CC          OTHER INFORMATION: human telomerase reverse transcriptase (hTTR)
SQ          SEQUENCE 4015 BP; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.

Query Match      99.6%; Score 3784; DB 57; Length 4015;
Best Local Similarity 100.0%; Pred.No. 0.00e+00;
Matches 3785; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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QY	133	GC	CCCTG6GCACGTTGCTGCGGGCGCTTGGGGGCCCAAGGCGCTGGCGGCTGTGTGCAAGCGCG	192
Db	181	GG	ACCCGCGGGGCTTTCCGCGCGCTGTGTGGCCAGTGCCTCGTGTGTGCTGTGCTTGGAGCG	240
OY	193	GG	ACCCCGCGGGCTTTCCGCGCGCTGTGTGGCCAGTGCCTCGTGTGTGCTGTGCTTGGAGCG	252
Db	241	AC	GGCGCGCGCGCGCGCGCGCGCGCTTCCGCCAGGTGTCTTCCCTGTGAAGAGCTGTGGC	300
OY	253	AC	GGCGCGCGCGCGCGCGCGCGCGCTTCCGCCAGGTGTCTTCCCTGTGAAGAGCTGTGGC	312
Db	301	CC	GAGTCTCTGACAGGGGTGTGGAGGGCGGGCGGGAAGAGTGTGGCTTGTGGCTTGTGGC	360
OY	313	CC	GAGTCTCTGACAGGGGTGTGGAGGGCGGGCGGGAAGAGTGTGGCTTGTGGCTTGTGGC	372
Db	421	CT	TGCCCCAACACGGTGTGACGACGCACTGCGGGGGAGAGGGGGCGTGGGGGTGTGTGTGCG	480
OY	433	CT	TGCCCCAACACGGTGTGACGACGCACTGCGGGGGAGAGGGGGGTGTGGGGGTGTGTGTGCG	492
Db	481	CC	GGGTGGGGGGAGAGAGCTGTGTGTTACCTGCTGTGGAGACCTGCGGGCTTGTGTGTCTGT	540
OY	493	CC	GGGTGGGGGGAGAGAGCTGTGTGTTACCTGCTGTGGAGACCTGCGGGCTTGTGTGTCTGT	552
Db	541	GG	CTCCAGCTGCGGCTTACCAAGGTGTGGGGCGCGCGCTGTACAGCTGTGGGGCGTGGAC	600
OY	553	GG	CTCCAGCTGCGGCTTACCAAGGTGTGGGGCGCGCGCTGTACAGCTGTGGGGCGTGGAC	612
Db	601	TC	AGGCCCGGGCGCGCGCACGCTAGTGGACCCGGAAGGCGTCTGGGATGTGGAACGGGC	660
OY	613	TC	AGGCCCGGGCGCGCGCACGCTAGTGGACCCGGAAGGCGTCTGGGATGTGGAACGGGC	672
Db	661	CT	GAAACATATAGGTGTAGGGAGGGCGGGGGTCCCTTGCGGCTGTGCCAGCCCGGGTGTGCAG	720
OY	673	CT	GAAACATATAGGTGTAGGGAGGGCGGGGGTCCCTTGCGGCTGTGCCAGCCCGGGTGTGCAG	732
Db	721	GAG	GCGGGGGGGAGTGTCCAGCCGAAGTGTCCGCTGTGCCAAGAGAGCCAGCGGTGGGCG	780
OY	733	GAG	GCGGGGGGGAGTGTCCAGCCGAAGTGTCCGCTGTGCCAAGAGAGCCAGCGGTGGGCG	792
Db	781	TG	CCCTGAGCCGGAGCGGAGCGCCGCTGTGGGCGAGGGGTCTTGGGCCACCCCGGCGAGAC	840
OY	793	TG	CCCTGAGCCGGAGCGGAGCGCCGCTGTGGGCGAGGGGTCTTGGGCCACCCCGGCGAGAC	852
Db	841	GCG	TGAGCCAGTACCCGT	900
OY	853	GCG	TGAGCCAGTACCCGT	912
Db	901	CAC	CTCTTGTGAAGGTGCGGTCTCTGTGGAGCGGCGCACTCCAGCCATCGTGGGGCGGCA	960
OY	913	CAC	CTCTTGTGAAGGTGCGGTCTCTGTGGAGCGGCGCACTCCAGCCATCGTGGGGCGGCA	972
Db	961	GC	ACACGCGGGCGCCCATTCACATTCGGGGCACCAGCTTCCTGGGAGACGCTTGTGCC	1020
OY	973	GC	ACACGCGGGCGCCCATTCACATTCGGGGCACCAGCTTCCTGGGAGACGCTTGTGCC	1032
Db	1021	CC	GGGTGTAGCGCGGAGACCAAGCACTTCTTACTCTTAGCGGACAGAGAGCACTGCG	1080
OY	1033	CC	GGGTGTAGCGCGGAGACCAAGCACTTCTTACTCTTAGCGGACAGAGAGCACTGCG	1092
Db	1081	GC	CTCTCTCTACTACTGAGCTCTGTGAGGGCCAGCTGAGTGTGGCGGTCGGAAGGCTGTGGA	1140
OY	1093	GC	CTCTCTCTCTACTACTGAGCTCTGTGAGGGCCAGCTGAGTGTGGCGGTCGGAAGGCTGTGGA	1152
Db	1141	GAC	CACTTTTCTGTGGTTCAGGGCCGTGTGATGCCAGGAGCTTCCCGGAGGTTGCTCCCGCT	1200
OY	1153	GAC	CACTTTTCTGTGGTTCAGGGCCGTGTGATGCCAGGAGCTTCCCGGAGGTTGCTCCCGCT	1212
Db	1201	GC	CCCAAGCGCTACTGCGCAATGTGGGCCCTGTTTCTGTGAGCTGTGTGGAGCAACAGCGCA	1260
OY	1213	GC	CCCAAGCGCTACTGCGCAATGTGGGCCCTGTTTCTGTGAGCTGTGTGGAGCAACAGCGCA	1272

D	1261	GTGCCCTCAGGGAGTGTCTCTCTCAAGACGCACTGCTCCGAGTGTGGGTACACCCAGC	1320
Q	1273	GTGGCCCTACGAGGGGTGTCTCTCTCAAGACGCACTGCTCCGAGTGTGGGTACACCCAGC	1332
D	1321	AGCCGGTGTGTGTCCCGGGAGAAAGCCCAAGGGCTCTGTGGGGCCCCGAGAGAGAGGA	1380
Q	1333	AGCCGGTGTGTGTGTCCCGGGAGAAAGCCCAAGGGCTCTGTGGGGCCCCGAGAGAGAGGA	1392
D	1381	CACAGACCCCCGTGCTGTGTGAGCTGTCTCGCCAGCAGCAGACAGCCCTGTGGCAGGTGA	1440
Q	1393	CACAGACCCCCGTGCTGTGTGAGCTGTCTCGCCAGCAGCAGACAGCCCTGTGGCAGGTGA	1452
D	1441	CGGCTGTGTGGGGCCCTGCTGGGGCCGGGTGTGGGCCCTGTGGGGCTCCAGGCA	1500
Q	1453	CGGCTGTGTGGGGCCCTGCTGGGGCCGGGTGTGGGCCCTGTGGGGCTCCAGGCA	1512
D	1501	CAAGGAACGCGCGTCTCTCAGAAACACCAAGATTCATCTCTCCGTGGGGAAGCATGCCAA	1560
Q	1513	CAAGGAACGCGCGTCTCTCAGAAACACCAAGATTCATCTCTCCGTGGGGAAGCATGCCAA	1572
D	1551	GCTCTCGCTGCAGAGACTGACGTGGAAGATGAGCGTGGCGGACTGCGCTTGGCTGGCAG	1620
Q	1573	GCTCTCGCTGCAGAGACTGACGTGGAAGATGAGCGTGGCGGACTGCGCTTGGCTGGCAG	1632
D	1621	GAGCCACAGGGTGTGGCTGTCTCCGCGCAGAGACGCTGCGCTGAGAGAGATCTGGC	1680
Q	1633	GAGCCACAGGGTGTGGCTGTCTCCGCGCAGAGACGCTGCGCTGAGAGAGATCTGGC	1692
D	1681	CAAGTCTCTGCATGCTGATGAGTGTGATCGTGTGAGCTGTGAGCTCTTCTTTTA	1740
Q	1693	CAAGTCTCTGTGACTGTGATGAGTGTGATCGTGTGAGCTGTGAGCTCTTCTTTTA	1752
D	1741	TGTACGGAAGACACGTTTCTAAAGAAAGCGCTTTTCTACGGGAAGAGTCTGGAG	1800
Q	1753	TGTACGGAAGACACGTTTCTAAAGAAAGCGCTTTTCTACGGGAAGAGTCTGGAG	1812
D	1801	CAAGTTCGCAAGCAATTGGAATCAGACAGCACTTGAAGAGGTGACAGCTGGCGGAGCTGTC	1860
Q	1813	CAAGTTCGCAAGCAATTGGAATCAGACAGCACTTGAAGAGGTGACAGCTGGCGGAGCTGTC	1872
D	1861	GAAGACAGAGGTACAGAGCATATGGGGAAGCCAGGCCCGCTCTGTGACGTCCAGACTCG	1920
Q	1873	GAAGACAGAGGTACAGAGCATATGGGGAAGCCAGGCCCGCTCTGTGACGTCCAGACTCG	1932
D	1921	CTTATCTCCCAAGGCTACAGCGGCTGGGGCGCATGTGAACATGAGACTAGCTGTGGAGC	1980
Q	1933	CTTATCTCCCAAGGCTACAGCGGCTGGGGCGCATGTGAACATGAGACTAGCTGTGGAGC	1992
D	1981	CAGAACGTTCCGACAGAAAAAGAGGCCGAGCGTCTACCTCGAGGGGTGAAGGCACTGT	2040
Q	1993	CAGAACGTTCCGACAGAAAAAGAGGCCGAGCGTCTACCTCGAGGGGTGAAGGCACTGT	2052
D	2041	CAGAGTGTCAACTAGAGAGGGGGCGGGGCCCGCGCTGTGGGGCGCTGTGTGTGG	2100
Q	2053	CAGAGTGTCAACTAGAGAGGGGGCGGGGCCCGCGCTGTGGGGCGCTGTGTGTGG	2112
D	2101	CCTGAGCATATCCACAGGGCTGTGGCGACCTTGTGTGTGTGTGTGGGCCACAGAACCC	2160
Q	2113	CCTGAGCATATCCACAGGGCTGTGGCGACCTTGTGTGTGTGTGTGTGGGCCACAGAACCC	2172
D	2161	GCCGCTGTGAGTGTACTTGTCAAGGTGTGATGAGAGGGGGCGGTACGACACATCCCCA	2220
Q	2173	GCCGCTGTGAGTGTACTTGTCAAGGTGTGATGAGAGGGGGCGGTACGACACATCCCCA	2232
D	2221	GGAGAGGCTCACGAGGTTCATCTCCGACGATCATCAAAACCCAGAACAGTACTGGTGGC	2280
Q	2233	GGAGAGGCTCACGAGGTTCATCTCCGACGATCATCAAAACCCAGAACAGTACTGGTGGC	2292
D	2281	TGCGTATGTGCGTGTCCAGAAAGCCGCCCATGTGGGCGCTCGCGAAAGCCTTCAAGAGCCA	2340
Q	2293	TGCGTATGTGCGTGTCCAGAAAGCCGCCCATGTGGGCGCTCGCGAAAGCCTTCAAGAGCCA	2352


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CC      APPLICATION NUMBER:  US 08/724,643
CC      FILING DATE:  01-OCT-1996
CC      CLASSIFICATION:  536
CC      ATTORNEY/AGENT INFORMATION:
CC      NAME:  Apple, Randolph T.
CC      REGISTRATION NUMBER:  36,429
CC      REFERENCE/DOCKET NUMBER:  015389-00293005
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE:  (415) 576-0200
CC      TELEFAX:  (415) 576-0300
CC      INFORMATION FOR SEQ ID NO:  224:
CC      SEQUENCE CHARACTERISTICS:
CC      LENGTH:  4015 base pairs
CC      TYPE:  nucleic acid
CC      STRANDEDNESS:  single
CC      TOPOLOGY:  linear
CC      MOLECULE TYPE:  CDNA
CC      FEATURE:
CC      NAME/KEY:  CDS
CC      LOCATION:  56..3454
CC      OTHER INFORMATION:
CC      OTHER INFORMATION:  /note= "human telomerase reverse
CC      OTHER INFORMATION:  transcriptase (hTERT) catalytic protein
CC      OTHER INFORMATION:  component"
CC      SEQUENCE 4015 BP:  663 A; 1363 C; 1275 G; 714 T; 0 OTHER.

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Query Match	99.6%;	Score 3784;	DB 42;	Length 4015;
Best Local Similarity	100.0%;	Pred. No. 0.00e+00;		
Matches 3785;	Conservative 0;	Mismatches 1;	Indels 0;	Gaps 0;

D	b	1	GCACGCTGCTCTCTGCTGCGCACAGTGGGAAGCCCTGAGCCCGGACACCCCGCATGCC	60
O	y	13	GCAGGCTGCTCTCTGCTGCGCACAGTGGGAAGCCCTGAGCCCGGACACCCCGCATGCC	72
D	b	61	GCAGCTCTCCCGCTGCGCAGAGCCGTGCTCTCTGCTCGCAGGCACATACCGCAGATGCT	120
O	y	73	GCAGCTCTCCCGCTGCGCAGAGCCGTGCTCTCTGCTCGCAGGCACATACCGCAGATGCT	132
D	b	121	GCCTGTGGCCACGTTGCTGCGGCGCCCTGGGAGCCCCAGGGCTGGCGGCTGGTGCAGCGCG	180
O	y	133	GCCTGTGGCCACGTTGCTGCGGCGCCCTGGGAGCCCCAGGGCTGGCGGCTGGTGCAGCGCG	192
D	b	181	GGACCCGGAGCTTTCGCGGCGCGTGGGCGCACATGCTGCTGGTGGGTCGCGGGAGCG	240
O	y	193	GGACCCGGAGCTTTCGCGGCGCGTGGGCGCACATGCTGCTGGTGGGTCGCGGGAGCG	252
D	b	241	ACGGCCGCCCCCGCGCCGCTCTCTTCGCGCACAGTGTCTGCTGCTGAAGAGCTGGTGGC	300
O	y	253	ACGGCCGCCCCCGCGCCGCTCTCTTCGCGCACAGTGTCTGCTGCTGAAGAGCTGGTGGC	312
D	b	301	CCGAGTGTGTGAGAGGCTGTGTGCAAGCGCGGCGGAGACGTGCTGGCTTGGCTTCCG	360
O	y	313	CCGAGTGTGTGAGAGGCTGTGTGCAAGCGCGGCGGAGACGTGCTGGCTTGGCTTCCG	372
D	b	361	GCTCTGTGAGCGGGACCGCGGGGGGACCCCGGAGGCTTTCACACACAGCTGGCGACGTA	420
O	y	373	GCTCTGTGAGCGGGACCGCGGGGGGACCCCGGAGGCTTTCACACACAGCTGGCGACGTA	432
D	b	421	CCTGCCCCAACAGGTGACAGCAGCACTGCGGGGGAGCGGGGCGTGGGGCTGCTGCTGG	480
O	y	433	CCTGCCCCAACAGGTGACAGCAGCACTGCGGGGGAGCGGGGCGTGGGGCTGCTGCTGG	492
D	b	481	CCGGGTGGGGCAGACGTGCTGTGTACCTGTGTGGACAGCTGGCGCTCTTGTGCTGGT	540
O	y	493	CCGGGTGGGGCAGACGTGCTGTGTACCTGTGTGGACAGCTGGCGCTCTTGTGCTGGT	552
D	b	541	GGCTCCAGCTGCTACCAAGGTGTACGGGCGCCGCTTACACAGCTGGCGCTCTCCAC	600
O	y	553	GGCTCCAGCTGCTACCAAGGTGTACGGGCGCCGCTTACACAGCTGGCGCTCTCCAC	612
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D	661	CTGAAACATTAAGGCTCAAGGGAGGGCCGGGGTTCCTCCCTGGGGCCATGCCAGGCTCCGGGGTGGAG	720
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D	781	TGCCCCCTGAGCCCGGAGCGGAGCGCCCTTGGGCAAGGGGTCTTGGGCCACCCGGGAGGAC	840
O	793	TGCCCCCTGAGCCCGGAGCGGAGCGCCCTTGGGGAAGGGGTCTTGGGCCACCCGGGAGGAC	852
D	841	GCGTGAGCCGAGTGCACCGCTGTTCGTGTGGTGTACCTGCGACACCCGGCCGAAGAAGC	900
O	853	GCGTGAGCCGAGTGCACCGCTGTTCGTGTGGTGTACCTGCGACACCCGGCCGAAGAAGC	912
D	901	CACCTCTTTGAAGGGTGGCTCTCTTGGCAAGCGGCACCTCCACCCTCGGTGGGCCAGCGTTGCC	960
O	913	CACCTCTTTGAAGGGTGGCTCTCTTGGCACAGCGGCACCTCCACCCTCGGTGGGCCAGCGTTGCC	972
D	961	GCACACAGCGGGGCCCTCCCATCACTCGGGGGCACAGCTCCCTGGGACAGCGTTGCC	1020
O	973	GCACACAGCGGGGCCCTCCCATCACTCGGGGGCACAGCTCCCTGGGACAGCGTTGCC	1032
D	1021	CCCGGTGTAGCGCCGAGNACMAAGCACTTCTCTACTCTAGGCGACAAAGAGAGCACTGCG	1080
O	1033	CCCGGTGTAGCGCCGAGNACMAAGCACTTCTCTACTCTAGGCGACAAAGAGAGCACTGCG	1092
D	1081	GCCTCTCTTCTACTACAGCTCTTGAGGCCACAGCTGACTGGCGCTCGGAGGCTGTGGA	1140
O	1093	GCCTCTCTTCTACTACAGCTCTTGAGGCCACAGCTGACTGGCGCTCGGAGGCTGTGGA	1152
D	1141	GACCATTTTCTGGGTTCACAGGCCCTGAGTTCGACAGAGATCCCGCCAGATTGCCCGCCT	1200
O	1153	GACCATTTTCTGGGTTCACAGGCCCTGAGTTCGACAGAGATCCCGCCAGATTGCCCGCCT	1212
D	1201	GCCCGAGCGCTACTGSCAAATGCGGCCCTGTTTCTGAGACTGCTTGGGAAACACGCGCA	1260
O	1213	GCCCGAGCGCTACTGSCAAATGCGGCCCTGTTTCTGAGACTGCTTGGGAAACACGCGCA	1272
D	1261	GTGGCCCTACGGGGGTGCTCTCAAGACGACACTGCCGGTGGAGTGTGGGTACACCCAGC	1320
O	1273	GTGGCCCTACGGGGGTGCTCTCAAGACGACACTGCCGGTGGAGTGTGGGTACACCCAGC	1332
D	1321	AGCGGTGTCTGTGCCCGGGAGAGGCCCAAGGGCTCTGTGGGGGCCCGCCGAGAGAGGA	1380
O	1333	AGCGGTGTCTGTGTGCCCGGGAGAGGCCCAAGGGCTCTGTGGGGGCCCGCCGAGAGAGGA	1392
D	1381	CACAGACCCCCGTGCGCTGGTGTGACGTGCTCCGCCACGACAGACAGCCCTTGGCAGGTGA	1440
O	1393	CACAGACCCCCGTGCGCTGGTGTGACGTGCTCCGCCACGACAGACAGCCCTTGGCAGGTGA	1452
D	1441	CGGCTGTGTGGGGCCGTCGCTTGGCCGGCGGTGGGCCCCCAGGCTCTGTGGGCTCCAGGCA	1500
O	1453	CGGCTGTGTGGGGCCGTCGCTTGGCCGGCGGTGGGCCCCCAGGCTCTGTGGGCTCCAGGCA	1512
D	1501	CAACGAACGCCGCTTCTCTCGAAGACACCAAGAGTTTCATCTCCCTGGGGAAAGATGCCAA	1560
O	1513	CAACGAAGCGCGCTTCTCTCGAAGAACACCAAGAGTTTCATCTCCCTGGGGAAAGATGCCAA	1572
D	1561	GCTCTGCTGAGAGGTGTGACGTGTGAAGATGAGCCGTGGCGGACCTCGCTTGGCTGGCAG	1620
O	1573	GCTCTGCTGAGAGGTGTGACGTGTGTGAAGATGAGCCGTGGCGGACCTCGCTTGGCTGGCAG	1632
D	1621	GAGCCACAGGGGTGGCTGTGTTTCCCGGCCACAGACACCTCTGCTGTGAGGAGATCTGGC	1680
O	1633	GAGCCACAGGGGTGGCTGTGTTTCCCGGCCACAGACACCTCTGCTGTGAGGAGATCTGGC	1692
D	1681	CAAGTCTCTGCATCGCTGTATGATGTGTACGTCTGTCAAGCTGCTCAAGCTCTTCTTTTA	1740
O	1693	CAAGTCTCTGCATCGCTGTATGATGTGTGTACGTCTGTCAAGCTGCTCAAGCTCTTCTTTTA	1752

Db	1741	TTGACGGAGACCAAGCTTTTAAAGAAACAGAGCTCTTTTCTACCGGAAAGAGTGTGGAG	1800
Oy	1753	TGTACAGGAGACCAAGCTTTAAAAAGAACAGAGCTCTTTTCTACCGGAAAGAGTGTGGAG	1812
Db	1801	CAAGTTCCAAAGCAATTGTGAATTCAGACAGCACTTGAAGAGGGGTGCAGCTCGGGAGCTATC	1860
Oy	1813	CAAGTTCCAAAGCAATTGTGAATTCAGACAGCACTTGAAGAGGGGTGCAGCTCGGGAGCTATC	1872
Db	1861	GGAAGCAGAGGTCAAGGCAGCATCGGGGAAGCCAGGCCCCCTCTGACGTCCAGACTCCG	1920
Oy	1873	GGAAGCAGAGGTCAAGGCAGCATCGGGGAAGCCAGGCCCCCTCTGACGTCCAGACTCCG	1932
Db	1921	CTTCATCCCCCAAGCTCAGGGGGCTGGGGCCGATGTGAACATGAGACTACGTGTGGAGC	1980
Oy	1933	CTTCATCCCCCAAGCTCAGGGGGCTGGGGCCGATGTGAACATGAGACTACGTGTGGAGC	1992
Db	1981	CAGAACGTTCCGCGAGAGAAAAAGAGGGCCGAGCGTCTCACCTCGAAGGTGAAGCACTGTT	2040
Oy	1993	CAGAACGTTCCGCGAGAGAAAAAGAGGGCCGAGCGTCTCACCTCGAAGGTGAAGCACTGTT	2052
Db	2041	CAGCGTGTCACTACGAGCGGGCGGGCGCCCCGCGCTCTGTGGCGCCTGTGTCTGGG	2100
Oy	2053	CAGCGTGTCACTACGAGCGGGCGGGCGCCCCGCGCTCTGTGGCGCCTGTGTCTGGG	2112
Db	2101	CCTGAGAGATATCCACAGGGGCTGTGGGCACACTTCGTGCTGCTGTGTGCGGGCCAGAGACC	2160
Oy	2113	CCTGAGAGATATCCACAGGGGCTGTGGGCACACTTCGTGCTGCTGTGTGCGGGCCAGAGACC	2172
Db	2161	GCCCGCTAGAGCTGACTTCTTCTCAAGGTGATGTGACGGGGCGGTGAGCAACCATCCCCA	2220
Oy	2173	GCCCGCTAGAGCTGACTTCTTCTCAAGGTGATGTGAGGGGGCGGTGAGCAACCATCCCCA	2232
Db	2221	GGACAGGCTCAAGGAGGTTCATCGCCAGACATCAAAACCCAGAACAGCTACTGCTGTGCG	2280
Oy	2233	GGACAGGCTCAAGGAGGTTCATCGCCAGACATCAAAACCCAGAACAGCTACTGCTGTGCG	2292
Db	2281	TGCGGATGCGGTGTCCAGAAAGCGCCGCATGCGGACAGTCCGCAAGCGCTTCAAGAGCA	2340
Oy	2293	TGCGGATGCGGTGTCCAGAAAGCGCCGCATGCGGACAGTCCGCAAGCGCTTCAAGAGCA	2352
Db	2341	CGTCTACCTTGCACAGACCTCCAGCCGTCATGACACAGATTGCTGAGGCTCACCTCAGGA	2400
Oy	2353	CGTCTACCTTGCACAGACCTCCAGCCGTCATGACACAGATTGCTGAGGCTCACCTCAGGA	2412
Db	2401	GACCAAGCCCGCTGAGGGATCCGTCGTATCGAGCAGAGCTCCTCCGTGATGAGGCAG	2460
Oy	2413	GACCAAGCCCGCTGAGGGATCCGTCGTATCGAGCAGAGCTCCTCCGTGATGAGGCAG	2472
Db	2461	CAGTGGGCTCTTGCACTCTTCTTAGGCTTCATGATGCCACACAGCGGTGCGATCAGGGG	2520
Oy	2473	CAGTGGGCTCTTGCACTCTTCTTAGGCTTCATGATGCCACACAGCGGTGCGATCAGGGG	2532
Db	2521	CAAGTCTACGTCACAGTCCAGGAGGATCCGCGAGGGCTCCATCTCTCCAGCCTCTGTG	2580
Oy	2533	CAAGTCTACGTCACAGTCCAGGAGGATCCGCGAGGGCTCCATCTCTCCAGCCTCTGTG	2592
Db	2581	CAGCGTGTCTACGCGCAGCATGAGAACAAAGCTGTTGCGGGGATTCGCGCGGAGGCGCT	2640
Oy	2593	CAGCGTGTCTACGCGCAGCATGAGAACAAAGCTGTTGCGGGGATTCGCGCGGAGGCGCT	2652
Db	2641	GCTCTCTGCTTGGTGGATATTTCTTGTGGTACACTCACTCACCTCACCGCGAANAAC	2700
Oy	2653	GCTCTCTGCTTGGTGGATATTTCTTGTGGTACACTCACTCACCTCACCGCGAANAAC	2712
Db	2701	CTTCCTCAGGACCTGGTCCGAGGTGCCCCTAGTATGGCTCGGTGAGAACTTGCGGAA	2760
Oy	2713	CTTCCTCAGGACCTGGTCCGAGGTGCCCCTAGTATGGCTCGGTGAGAACTTGCGGAA	2772
Db	2761	GACAGTGTGAATTCCTCTTAAGACGAGAGCCCTGGGTGACAGGCTTGTGTTCAGAT	2820
Oy	2773	GACAGTGTGAATTCCTCTTAAGACGAGAGCCCTGGGTGACAGGCTTGTGTTCAGAT	2832
Db	2821	GCGGCGCACAGGCTATTCCTCGTGTGCGGCTGCTGTGATACCCGAGACCTGAGAGT	2880

OY	2833	GCCGCCCCAGGGCCTATTTCCTCGGTGGCGCCCTGCCTGCTGGATACC	CGGACCTCGGAAGT	2892Z
Db	2881	GCAGAGGACACTCCACAGTATGCCGAGACCTCCATCAAGGACAGTCCACTTCAACG		2940A
OY	2893	GCAGAGGACACTCCACAGTATGCCGAGACCTCCATCAAGGACAGTCCACTTCAACG		2952Z
Db	2941	CGGCTTCAAGGCTGGGAGAACAATCGCTGCACAACTCTTTGGGGCTCTTGCGGCTGAAGTG		3000A
OY	2953	CGGCTTCAAGGCTGGGAGAACAATCGCTGCACAACTCTTTGGGGCTCTTGCGGCTGAAGTG		3012Z
Db	3001	TCACAGCCTGTTTCTGGAATTTGGAGTGAACAGCCCTCCAGACGGGTGCACCAACATATA		3066B
OY	3013	TCACAGCCTGTTTCTGGAATTTGGAGTGAACAGCCCTCCAGACGGGTGCACCAACATATA		3072Z
Db	3061	CAAGATCCTCTGCTGCAGGCGCTACAGAGTTTCAACGATGTGTCTGCAGCTCCCATTTTCA		3120D
OY	3073	CAAGATCCTCTGCTGCAGGCGCTACAGAGTTTCAACGATGTGTCTGCAGCTCCCATTTTCA		3132Z
Db	3121	TCACAGAGTTTGGAGAAGCCCCACATTTTTCTCGCGCTCATCTCTGACAGGGCCTCCCT		3180A
OY	3133	TCACAGAGTTTGGAGAAGCCCCACATTTTTCTCGCGCTCATCTCTGACAGGGCCTCCCT		3192Z
Db	3181	CTGCTACTCCATCCTGAAABCCAAAGAACCGAGGATGTGTGCTTGGGGGCCAAGGGCGCCG		3240A
OY	3193	CTGCTACTCCATCCTGAAABCCAAAGAACCGAGGATGTGTGCTTGGGGGCCAAGGGCGCCG		3252Z
Db	3241	CGGCGCTCTGCGCCCTCCGAGGCGCGGTGGAGTGGCTGCACACAAAGATTCTCTCAAGCT		3300A
OY	3253	CGGCGCTCTGCGCCCTCCGAGGCGCGGTGGAGTGGCTGCACACAAAGATTCTCTCAAGCT		3312Z
Db	3301	GACTGACACCCGTGTCACTACGTGTCCACTCTTGGGGTCACTCAGAGACAGCCACAGCSGA		3360A
OY	3313	GACTGACACCCGTGTCACTACGTGTCCACTCTTGGGGTCACTCAGAGACAGCCACAGCSGA		3372Z
Db	3361	GCTAGATCGGAAGTCTCCCGGGGAGACAGCTGACTGCTCTGGAGGGCCGACGCCAACCCGGC		3420D
OY	3373	GCTAGATCGGAAGTCTCCCGGGGAGACAGCTGACTGCTCTGGAGGGCCGACGCCAACCCGGC		3432Z
Db	3421	ACTGCCCTCAGACTTCAAGACCAATCTGTGGAGTAGTGGCACCCGGCCACAGGACGAGCCGA		3480A
OY	3433	ACTGCCCTCAGACTTCAAGACCAATCTGTGGAGTAGTGGCACCCGGCCACAGGACGAGCCGA		3492Z
Db	3481	GAGCAGACACCGACGACCCCTGTGCAGCGCCGGGCTCTACGTCTCCAGGAGGAGGAGGGCGCC		3540A
OY	3493	GAGCAGACACCGACGACCCCTGTGCAGCGCCGGGCTCTACGTCTCCAGGAGGAGGAGGGCGCC		3552Z
Db	3541	CACACCCAGGCGCCGACACCGCTGGGAGTCTGAGGGCTGAGATGATGTTTGGCCGAGGCTG		3600A
OY	3553	CACACCCAGGCGCCGACACCGCTGGGAGTCTGAGGGCTGAGATGATGTTTGGCCGAGGCTG		3612Z
Db	3601	CATGTCGGGCTGAAGGCTGAGTGTCCGGGCTGAGGCTTGAGGAGTAGTGTCCAGGCAAGGGCT		3660B
OY	3613	CATGTCGGGCTGAAGGCTGAGTGTCCGGGCTGAGGCTTGAGGAGTAGTGTCCAGGCAAGGGCT		3672Z
Db	3661	GAGTGTCCAGACACACTGCGCGCTTCACTTCCCACAGGCTGGGCTCGGCTCCACCCCA		3720D
OY	3673	GAGTGTCCAGACACACTGCGCGCTTCACTTCCCACAGGCTGGGCTCGGCTCCACCCCA		3732Z
Db	3721	GGGCGCAGCTTTCCTCAACAGAGAGCCCGGCTTCCACTCCCAACATAGAAATAGTCATCC		3780A
OY	3733	GGGCGCAGCTTTCCTCAACAGAGAGCCCGGCTTCCACTCCCAACATAGAAATAGTCATCC		3792Z
Db	3781	CCAGAT 3786		
OY	3793	CCTGAT 3798		
RESULT	6	PCT-US99-06898-1 STANDARD; DNA; UNC; 4015 BP.		
ID	xxxxxx			
DT	Sequence 1, Application PC/TUS9906898			

D	1621	GAGCCACAGGGT	TGGCTGTGTTCCGGCCGACAGCACCGTCTGCGTAGAGACTCTGGC	1860
Q	1633	GAGCCACAGGGT	TGGCTGTGTTCCGGCCGACAGCACCGTCTGCGTAGAGACTCTGGC	1692
D	1681	CAAGTTCCTGCAC	TGGTGAATGTGATACGCATCGACGAGCTGCATGAGTCTTCTTTTA	1740
Q	1693	CAAGTTCCTGCAC	TGGTGAATGTGATACGCATCGACGAGCTGCATGAGTCTTCTTTTA	1732
D	1741	TGTCAGGAGAC	CAAGCTTTTCAAAAGAACAGGCTCTTTTCTACCGAAGATGCTGGAG	1800
Q	1753	TGTCAGGAGAC	CAAGCTTTTCAAAAGAACAGGCTCTTTTCTACCGAAGATGCTGGAG	1812
D	1801	CAAGTTGCAAA	GCAATGTGAATACAGCACTTGAAGAGGTGACAGCTCGGGAGCTGC	1860
Q	1813	CAAGTTGCAAA	GCAATGTGAATACAGCACTTGAAGAGGTGACAGCTCGGGAGCTGC	1872
D	1861	GGAAGCAGAGGT	TCAGGCAGCATCGGGAAGCCAGGCCCGCTGCTGACGTCCAGACTCG	1920
Q	1873	GGAAGCAGAGGT	TCAGGCAGCATCGGGAAGCCAGGCCCGCTGCTGACGTCCAGACTCG	1932
D	1921	CTTCAATCCCC	CAAGCTTACCGGCTGCGGCGGATTTGAAACATGACGTACGTGTGGAGC	1980
Q	1933	CTTCAATCCCC	CAAGCTTACCGGCTGCGGCGGCGATTTGAAACATGACGTACGTGTGGAGC	1992
D	1981	CAGAAAGTTC	CCGCGAGAAAAAGAGGCGCAGCTCTACACTGAGAGGTAAAGCACTGT	2040
Q	1993	CAGAAAGTTC	CCGCGAGAAAAAGAGGCGCAGCTCTACACTGAGAGGTAAAGCACTGT	2052
D	2041	CAGGTGCTCA	CTACAGCGGGGCGGGCGCCCGGCTCTGTGGCGCTCTGTCTGGG	2100
Q	2053	CAGGTGCTCA	CTACAGCGGGGCGGGCGGGCGCCCGGCTCTGTGGCGCTCTGTCTGGG	2112
D	2101	CCTGACGATAT	CCACAGGGGCTGTGGCCACTTCGTGCTGCGATGTGGGGGCCACAGACC	2160
Q	2113	CCTGACGATAT	CCACAGGGGCTGTGGCCACTTCGTGCTGCGATGTGGGGGCCACAGACC	2172
D	2161	GCCGCTGAGCT	GTACTTTGTCAAGGTGATGTGACGGGGCGGTACGACACCATCCCCA	2220
Q	2173	GCCGCTGAGCT	GTACTTTGTCAAGGTGATGTGACGGGGCGGTACGACACCATCCCCA	2232
D	2221	GGAAGGCTCA	CGGAGGTCATGCCACAGCATCAACAACCCGAACACGATCTGCTGCG	2280
Q	2233	GGAAGGCTCA	CGGAGGTCATGCCACAGCATCAACAACCCGAACACGATCTGCTGCG	2292
D	2281	TCGGATCCCT	TGCTCCAGAGGCGGCCCATGTGGGACGTGCCCAAGGCTTCAAGAGCA	2340
Q	2293	TCGGATCCCT	TGCTCCAGAGGCGGCCCATGTGGGACGTGCCCAAGGCTTCAAGAGCA	2352
D	2341	CGTCTTACCT	TTGACAAACCTCCAGCCGTACATGACACAGTTCTGTGGCTCACCTCAGGA	2400
Q	2353	CGTCTTACCT	TTGACAAACCTCCAGCCGTACATGACACAGTTCTGTGGCTCACCTCAGGA	2412
D	2401	GACACAGCC	CGGTGAGGATCCGTCGTCATCGACAGACACTCCTCCCTAAAGAGCGAG	2460
Q	2413	GACACAGCC	CGGTGAGGATCCGTCGTCATCGACAGACACTCCTCCCTAAAGAGCGAG	2472
D	2461	CAGTGGCTCT	TTCGACAGCTCTTCCAGGCTCATGTGCCACACGCGGTGCCATCAGGGG	2520
Q	2473	CAGTGGCTCT	TTCGACAGCTCTTCCAGGCTCATGTGCCACACGCGGTGCCATCAGGGG	2532
D	2521	CAAGCTCAGCT	CCAGTCCAGGAGGAGATCCCGAGGGGCTCAATCCTCCAGCTGCTGTG	2580
Q	2533	CAAGCTCAGCT	CCAGTCCAGGAGGAGATCCCGAGGGGCTCAATCCTCCAGCTGCTGTG	2592
D	2581	CAGCTGTGCTA	CGGCACATGTGAGAACAGCTGTTGCGGGGATTCGGCGGAGAGGCGCT	2640
Q	2593	CAGCTGTGCTA	CGGCACATGTGAGAACAGCTGTTGCGGGGATTCGGCGGAGAGGCGCT	2652
D	2641	GCTCTGCGT	TGGTGAATGATTTCTTGTGTGACACTCACTTCCACCGCGAAGAC	2700
Q	2653	GCTCTGCGT	TGGTGAATGATTTCTTGTGTGACACTCACTTCCACCGCGAAGAC	2712

Db	2701	CTTCTCAGAACCCCTGGTCCGAGGGTCCCTGAGTATGGCTGCTGGTGAACCTTGGCGAA	2760
Qy	2713	CTTCTCAGGACCCCTGGTCCGAGGGTCCCTGAGTATGGCTGCTGGTGAACCTTGGCGAA	2772
Db	2761	GACAGTGTGAACCTCCCTGTAGAGACGAGGGCCCTGGGTGGCAAGGGTTTGTTCAGAT	2820
Qy	2773	GACAGTGTGAACCTCCCTGTAGAGACGAGGGCCCTGGGTGGCAAGGGTTTGTTCAGAT	2832
Db	2821	GCGGCGCCACGCGCTATTCCCTGGTGGCGGCTGCTGTGATACCAGGACCTGGAGGT	2880
Qy	2833	GCGGCGCCACGCGCTATTCCCTGGTGGCGGCTGCTGTGATACCAGGACCTGGAGGT	2892
Db	2881	GCAGAGGCACTACACGAGCTATCCCGGACCTCCATCAGAGCACTCTACCTTCAACCG	2940
Qy	2893	GCAGAGGCACTACACGAGCTATCCCGGACCTCCATCAGAGCACTCTACCTTCAACCG	2952
Db	2941	GCGCTTCAAGGCTGGGAGAACATGCGTCGCAAACTCTTTGGGGTCTTGGCGCTGAAGTG	3000
Qy	2953	GCGCTTCAAGGCTGGGAGAACATGCGTCGCAAACTCTTTGGGGTCTTGGCGCTGAAGTG	3012
Db	3001	TCACAGCCTGTTTTCGATTTGCAAGTGAACAGCCTCCAGAGGGTGTGCACCAACATCTA	3060
Qy	3013	TCACAGCCTGTTTTCGATTTGCAAGTGAACAGCCTCCAGAGGGTGTGCACCAACATCTA	3072
Db	3061	CAAGATCCTCCTGCTGAGAGCGTACAGGTTTACAGCATGTGTGCTGCAGCTCCCATTTCA	3120
Qy	3073	CAAGATCCTCCTGCTGAGAGCGTACAGGTTTACAGCATGTGTGCTGCAGCTCCCATTTCA	3132
Db	3121	TCAGCAAGTTTGAAGAACCCCAATTTTCTGCGCGCTATCTGTGACAGGCGCTCCT	3180
Qy	3133	TCAGCAAGTTTGAAGAACCCCAATTTTCTGCGCGCTATCTGTGACAGGCGCTCCT	3192
Db	3181	CTGCACTCCATCCTGTGAAGACCAAGAACGAGGAATGTGCGTGGGGGGCAAGGGCGCGC	3240
Qy	3193	CTGCACTCCATCCTGTGAAGACCAAGAACGAGGAATGTGCGTGGGGGGCAAGGGCGCGC	3252
Db	3241	GCGGCCCTGCGCCTCCGAGGCGGTGACAGTGGTGTGCCACCAAGCATTTCTGCTCAAGT	3300
Qy	3253	GCGGCCCTGCGCCTCCGAGGCGGTGACAGTGGTGTGCCACCAAGCATTTCTGCTCAAGT	3312
Db	3301	GACGTGACACCGGTGTACACACTGTGCACATCCTGGGGGTACTCAGAGAACGCCAGAGCGCA	3360
Qy	3313	GACGTGACACCGGTGTACACACTGTGCACATCCTGGGGGTACTCAGAGAACGCCAGAGCGCA	3372
Db	3361	GCTGAGTCTGGAAGTCCCGGGGAGAGAGCTGACTGCGCTGAGAGCGCGCAGGCCAACCGGCG	3420
Qy	3373	GCTGAGTCTGGAAGTCCCGGGGAGAGAGCTGACTGCGCGCTGAGAGCGCGCAGGCCAACCGGCG	3432
Db	3421	ACTGCGCTCAGACTTCAAGACCATCTGGAAGTGAATGAGCACCAGCCGCCACAGCAGCGCGA	3480
Qy	3433	ACTGCGCTCAGACTTCAAGACCATCTGGAAGTGAATGAGCACCAGCCGCCACAGCAGCGCGA	3492
Db	3481	GAGCAGACACGAGACGCGCTGTACAGCCCGGGCTCTACGTCCAGAGGAGAGAGGGGCGGC	3540
Qy	3493	GAGCAGACACGAGACGCGCTGTACAGCCCGGGCTCTACGTCCAGAGGAGAGAGGGGCGGC	3552
Db	3541	CACACCCAGGCGCGCACCTGGAAGTCTGAGAGCCTGAGTAGTGTTTGGCCGAGGGCTG	3600
Qy	3553	CACACCCAGGCGCGCACCTGGAAGTCTGAGAGCCTGAGTAGTGTTTGGCCGAGGGCTG	3612
Db	3601	CATGTCGGGCTGAAGGGTGTGAGTGTCCGGGTGAGGGCTAGAGGAGTGTCAAGCCAAAGGGCT	3660
Qy	3613	CATGTCGGGCTGAAGGGTGTGAGTGTCCGGGTGAGGGCTAGAGGAGTGTCAAGCCAAAGGGCT	3672
Db	3661	GAGTGTCCAGCACACCTGCGCTTCACTTCCCAACAGAGCTGGCCTCGGCTCCACCCCA	3720
Qy	3673	GAGTGTCCAGCACACCTGCGCTTCACTTCCCAACAGAGCTGGCCTCGGCTCCACCCCA	3732
Db	3721	GGGCCAGCTTTTCTCACACAGAGAGCCCGGCTTCACCTCCCAACATAGAAATAGTCATCC	3780
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Db	3781	CCAGAT 3786	

QY 2893 GCAGAGGACTACTCCAGCTATGCCGACCTCATCAGAGCCAGTCTACCTCAACGG 2952
Db 2941 CGGCTTCAAGGCTGGGAGAACATCCGCAACTCTTTGGGGTCTTGGCGCTCAAGTG 3000
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Db 3001 TCACAGGCTGTTTGGATTGGATTGACAGTGAACGCTCCAGAGGAGTGTGCACCAATATCA 3060
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Db 3061 CAAGATCCCTCTGCTGTCAGGGGTACAGGTTTCACCATGTGTGTGTCAGTCCATTCA 3120
QY 3073 CAAGATCCCTCTGCTGTCAGGGGTACAGGTTTCACCATGTGTGTGTCAGTCCATTCA 3132
Db 3121 TCAGCAATTTGGAAAGAACCCCATTTTCTGCGGCTCATCTGTACAGCGGCTCCCT 3180
QY 3133 TCAGCAATTTGGAAAGAACCCCATTTTCTGCGGCTCATCTGTACAGCGGCTCCCT 3192
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QY 3193 CTGCTACTCCATCTGTAAGAGCCAAAGACGAGGATGTGCGGGGGCCAAAGGGCGCG 3252
Db 3241 CGGCGCTCTGCGCTCCGAGGCGCTGTCAGTGGCTGTGCCACCAAGCATCTCTGCTCAAGCT 3300
QY 3253 CGGCGCTCTGCGCTCCGAGGCGCTGTCAGTGGCTGTGCCACCAAGCATCTCTGCTCAAGCT 3312
Db 3301 GACTGGAACCGTGTCTACCTTACCTGCTCCACTCTGGGGTCTACTCAGACACCCAGACGA 3360
QY 3313 GACTGGAACCGTGTCTACCTTACCTGCTCCACTCTGGGGTCTACTCAGACACCCAGACGA 3372
Db 3361 GCTGAGTGGAAAGCTCCGGGGGAGACGCTGACTGCGCTGGGGGGCCGACGCCACCGGCG 3420
QY 3373 GCTGAGTGGAAAGCTCCGGGGGAGACGCTGACTGCGCTGGGGGGCCGACGCCACCGGCG 3432
Db 3421 ACTGCGCTCAGACTTCAAGACCATCTGAGACTGATGGCCACCCGCCACAGCCAGCCGA 3480
QY 3433 ACTGCGCTCAGACTTCAAGACCATCTGAGACTGATGGCCACCCGCCACAGCCAGCCGA 3492
Db 3481 GAGCAGACACGACGACGCGCTGTACGCGGGGCTTACGTCGCCAGGAGGAGGAGGCGGCG 3540
QY 3493 GAGCAGACACGACGACGCGCTGTACGCGGGGCTTACGTCGCCAGGAGGAGGAGGCGGCG 3552
Db 3541 CACACCCAGGCGGACGCGCTGGGAGTCTGAGGCGCTGAGTGTGTTGGCCGAGCGCTG 3600
QY 3553 CACACCCAGGCGGACGCGCTGGGAGTCTGAGGCGCTGAGTGTGTTGGCCGAGCGCTG 3612
Db 3601 CATGTCGCGCTGAAAGCTGAGTGTCCGCTGAGGCTGAGCGAGTGTCCAGCCAAAGGCT 3660
QY 3613 CATGTCGCGCTGAAAGCTGAGTGTCCGCTGAGGCTGAGCGAGTGTCCAGCCAAAGGCT 3672
Db 3661 GAGTGTCCAGCACACCTGCGCTTCTTCACTTCCCAAGGCTGGGCTGCCACCCCA 3720
QY 3673 GAGTGTCCAGCACACCTGCGCTTCTTCACTTCCCAAGGCTGGGCTGCCACCCCA 3732
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QY 3793 CCTGAT 3798

RESULT 8
ID US-08-912-951-1 STANDARD; DNA; UNC; 4015 BP.
AC xxxxxx

DE Sequence 1, Application US/08912951
CC Sequence 1, Application US/08912951
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Langer, Joachim
CC APPLICANT: Nakamura, Toru

CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morlin, Gregg B.
CC APPLICANT: Harley, Calvin
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC TITLE OF INVENTION: THERAPEUTIC METHODS
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002600US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 1:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 4015 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: CDNA
CC FEATURE:
CC NAME/KEY: CDS
CC LOCATION: 56..3454
CC OTHER INFORMATION: /product="hTR"
CC OTHER INFORMATION: /note="human telomerase reverse
CC OTHER INFORMATION: transcriptase (hTR) catalytic protein
CC OTHER INFORMATION: component"
CC SEQUENCE 4015 BP; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.

Query Match 99.6%; Score 3784; DB 44; Length 4015;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 3785; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 1 GCAGGCTGCGTCTGCTGCGACGTGGAAAGCCTTGCGCCGCGGACCCCGCGCATGCC 60
QY 13 GCAGGCTGCGTCTGCTGCGACGTGGAAAGCCTTGCGCCGCGGACCCCGCGCATGCC 72

D	b	61	GC	GC	GC	T	C	C	C	C	C	G	T	C	C	C	C	G	A	G	C	G	T	G	C	T	G	C	T	G	C	G	A	C	C	T	A	C	C	G	A	G	A	G	T	C	T	120			
O	y	73	G	C	G	C	C	T	C	C	C	G	T	G	C	C	G	A	C	C	C	C	T	G	C	T	G	C	C	A	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	132				
D	b	121	G	C	C	C	T	T	G	C	A	C	T	T	G	T	G	G	G	G	C	C	T	G	G	G	C	C	C	A	G	G	G	C	T	G	G	G	C	T	G	G	G	C	T	G	A	G	C	G	180
O	y	133	G	C	C	C	C	T	T	G	C	A	C	T	T	G	C	T	G	G	G	C	C	T	G	G	G	C	C	C	A	G	G	C	T	G	G	G	C	T	G	G	G	C	T	G	A	G	C	G	192
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O	y	253	A	C	G	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	312						
D	b	301	C	C	G	A	G	T	C	T	G	C	A	G	C	T	G	T	G	C	A	G	C	C	G	C	G	C	G	A	A	G	A	G	A	G	A	G	A	G	A	G	A	G	A	G	A	360			
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O	y	433	C	T	G	C	C	C	A	C	A	C	G	T	A	C	C	A	C	C	A	C	C	A	C	C	A	C	C	A	C	C	A	C	C	A	C	C	A	C	C	A	C	C	A	492					
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Q	y	1873	GGAAGCAGAGGTGAGCGAGCATCGGGAGACAGGCGCGCGCTGCTGACGTCAGACTCG	1932
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Q	y	1933	CTTATCTCCCAAGCTGACGCGCTGCGGCCATTTGTGAACATGCACTGCTGTGGAGC	1992
D	b	1981	CAGAACGTCGCGAGAGAAAAAGAGGGCCAGAGGCTCAACTGAGAGGTGAAGGACATGTT	2040
Q	y	1993	CAGAACGTCGCGAGAGAAAAAGAGGGCCAGAGGCTCAACTGAGAGGTGAAGGACATGTT	2052
D	b	2041	CAGGCTGCTCAACTACAGAGGCGGCGCGGCCCGCGCTCTGTGGCGCTGCTGTCTGG	2100
Q	y	2053	CAGGCTGCTCAACTACAGAGGCGGCGCGGCCCGCGCTCTGTGGCGCTGCTGTCTGG	2112
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Q	y	2113	CTGTGAGATATCCACAGGCGCTGGCGCACCTTGTGCTGCTGTGCGGGCCAGAGACC	2172
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Q	y	2173	GGCGCTGAGCTGTACTTCTTCAAGGTGATGTGACAGGGCGGCTACAGACCATCTCCCA	2232
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RESULT 9
 PCT-US99-07097-1 STANDARD; DNA; UNC; 4015 BP.
 AC xxxxxx
 DT Sequence 1, Application PC/TUS9907097
 CC Sequence 1, Application PC/TUS9907097
 CC GENERAL INFORMATION:
 CC APPLICANT: Morin, Gregg B.
 CC APPLICANT: Geron Corporation
 CC TITLE OF INVENTION: Human Telomerase Catalytic Subunit Variants
 CC FILE REFERENCE: 015389-00310PC
 CC CURRENT APPLICATION NUMBER: PCT/US99/07097
 CC CURRENT FILING DATE: 1999-03-31
 CC EARLIER APPLICATION NUMBER: US 09/052,864
 CC EARLIER FILING DATE: 1998-03-31
 CC EARLIER APPLICATION NUMBER: US 09/128,354
 CC EARLIER FILING DATE: 1998-08-03
 CC NUMBER OF SEQ ID NOS: 21
 CC SOFTWARE: PatentIn Ver. 2.0
 CC SEQ ID NO 1
 CC LENGTH: 4015
 CC TYPE: DNA
 CC ORGANISM: Homo sapiens
 CC FEATURE:
 CC NAME/KEY: CDS
 CC LOCATION: (56) ..(3454)
 CC OTHER INFORMATION: human telomerase reverse transcriptase (hTERT) cDNA
 CC SEQUENCE 4015 BP; 663 A; 1363 C; 1275 G; 714 T; 0 OTHER.

Query Match 99.68; Score 3784; DB 57; Length 4015;
 Best local Similarity 100.0%; Pred. No. 0.00e+00;
 Matches 3785; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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RESULT 10
ID US-09-128-354-1 STANDARD; DNA; UNC; 4015 BP.
AC xxxxxx
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DE Sequence 1, Application US/09128354
CC Sequence 1, Application US/09128354
CC GENERAL INFORMATION:
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Geron Corporation
CC TITLE OR INVENTION: Human Telomerase Catalytic Subunit Variants
CC FILE REFERENCE: 015389-003310US
CC CURRENT APPLICATION NUMBER: US/09/128,354
CC CURRENT FILING DATE: 1998-08-03
CC EARLIER APPLICATION NUMBER: US 08/851,843
CC EARLIER FILING DATE: 1997-05-06
CC EARLIER APPLICATION NUMBER: US 08/854,050
CC EARLIER FILING DATE: 1997-05-09
CC EARLIER APPLICATION NUMBER: US 08/911,312
CC EARLIER FILING DATE: 1997-08-14
CC EARLIER APPLICATION NUMBER: US 08/912,951
CC EARLIER FILING DATE: 1997-08-14
CC EARLIER APPLICATION NUMBER: US 08/915,503
CC EARLIER FILING DATE: 1997-08-14
CC EARLIER APPLICATION NUMBER: WO PCT/US97/17618
CC EARLIER FILING DATE: 1997-10-01
CC EARLIER APPLICATION NUMBER: WO PCT/US97/17885
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CC EARLIER APPLICATION NUMBER: US 08/974,549
CC EARLIER FILING DATE: 1997-11-19
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CC EARLIER FILING DATE: 1997-11-19
CC EARLIER APPLICATION NUMBER: US 09/052,864
CC EARLIER FILING DATE: 1998-03-31
CC NUMBER OF SEQ ID NOS: 21
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CC TYPE: DNA
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CC	APPLICATION NUMBER:	WO PCT/US97/17618
CC	FILING DATE:	01-OCT-1997
CC	PRIOR APPLICATION DATA:	
CC	APPLICATION NUMBER:	WO PCT/US97/17885
CC	FILING DATE:	01-OCT-1997
CC	ATTORNEY/AGENT INFORMATION:	
CC	NAME:	Apple, Randolph Ted
CC	REGISTRATION NUMBER:	36,429
CC	REFERENCE/DOCKET NUMBER:	015389-0026100S
CC	TELECOMMUNICATION INFORMATION:	
CC	TELEPHONE:	(415) 576-0200
CC	TELEFAX:	(415) 576-0300
CC	INFORMATION FOR SEQ ID NO:	1:
CC	SEQUENCE CHARACTERISTICS:	
CC	LENGTH:	4015 base pairs
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Best Local Similarity 100.0%; Pred. No. 0.00e+00; Indels 0; Gaps 0;		
Matches 3785; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
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Qy	13	GCAAGCGTGCGTCTCTGCTGCGCACACTGGGAAGCCCTGGCCCCGGCACCCC CGCATGCC 72
Db	61	GCGGCGTCCCGCGTGCAGAGCCGTGCGCTCCCTGCTCGCAGCCACTACCGAGATGCT 120
Qy	73	GCGGCGTCCCGCGTGCAGAGCCGTGCGCTCCCTGCTCGCAGCCACTACCGAGATGCT 132
Db	121	GCGCGTGGCCACGTTGCTGTGGGGGCCCTTGGGGCCCCAAGGCGTGGCGTGTGGACGGC 180
Qy	133	GCGCGTGGCCACGTTGCTGTGGGGGCCCTTGGGGCCCCAAGGCGTGGCGTGTGGACGGC 192
Db	181	GGACCCGGCGGCTTCCGCGCGGTGTGGCCACA TGCTGGTGTGGCTCCCTGGAGCGC 240
Qy	193	GGACCCGGCGGCTTCCGCGCGGTGTGGCCACA TGCTGGTGTGGCTCCCTGGAGCGC 252
Db	241	ACGGCGCGCCCCCGCGCGCCCTTCCTTCGCCAGGTGTCTGCTGAAGAAGCTGTGGC 300
Qy	253	ACGGCGCGCCCCCGCGCGCCCTTCCTTCGCCAGGTGTCTGCTGAAGAAGCTGTGGC 312
Db	301	CCGAGTGTGAGAGGGCTGTGGCGAGCGCGGGCGGGAABAAGTGTGGCCCTTGGGCTTCG 360
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Qy	373	GCTGCTGAGAGGGGCCCGCGGGGGGCCCCCGGAGGCCCTTACCAACAAGCGTGGCCACTTA 432
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Qy	433	CCTGCGCCAACAGGTGACACGACACTGCGGGGGAGCGGGGGCGTGGGGGGCTGTGTGCGG 492
Db	481	CCGGGTGGGACACAGCTGTGCTTACCTGTGACACGCGCGCGCTCTTTGTGTGGT 540
Qy	493	CCGGGTGGGACACAGCTGTGCTTACCTGTGACACGCGCGCGCTCTTTGTGTGGT 552
Db	541	GGCTCCACAGTGGCGCTTACCAGGTGTGTGCGGGCGCGCGCTGTACCAGTCTGGCGCTGCCAC 600
Qy	553	GGCTCCACAGTGGCGCTTACCAGGTGTGTGCGGGCGCGCGCTGTACCAGTCTGGCGCTGCCAC 612

D	601	TCAGCCCCCCCCCCCCCACAGCCTAGTGGAGACCCGGAAGGCGTCTGGGATGCCAACGGC	660
Q	613	TCAGAGCCCGGCCCCCCCCACACAGCTAGTGGACCCGGAAGGCGTCTGGGATGCCAACGGC	672
D	661	CTGGAACCATAGAGGTGAGGAGGCGGGGCTCCCTGGGCGCTGCCAGCCCGGGTGGAG	720
Q	673	CTGGAAACATAGGCTCAGGGAAGGCGGGGTTCCCTTGGGCTGCCAGCCCGGGTGGAG	732
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Q	733	GAGGCGGGGGGAGTGCACAGCCGAAGTGCCTGTTGCCAAGAGAGCCAGGCGTGGCG	792
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Q	853	GCGTGAACCAAGTAGACCGTGTGTTCTGTGTGGTGCACCTGGCACAACCCGCCAAGAAGC	912
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D	961	GCACACAGCGGGGGCCCCCATCCACATCGGGGGCACAGCTCCCTGGAGACGCTTGCC	1020
Q	973	GCACACAGCGGGGGCCCCCATCCACATCGGGGGCACAGCTCCCTGGAGACGCTTGCC	1032
D	1021	CCGGGTGTACGCGGAGACCAAGCATCTTCTACTCTCAGGCGACAAGAGACAGCTGCG	1080
Q	1033	CCCGGTGTACGCGGAGACCAAGCATCTTCTACTCTCAGGCGACAAGAGAGACAGCTGCG	1092
D	1081	GCCCTCCTCTCACTCAGCCTGTGAGGGCCAGCCGACCTGGCGGTGGAGAGCTGTGGGA	1140
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Q	1153	GACCATCTTCTGGGTTCCAGGCGCTTGATGCCAGAGGATCCCGCCAGATTGCCCGCT	1212
D	1201	GGCCACAGCTACTGGCAATGGGGCCCTGTTTCTGAGAGCTGCTTGGGAACACAGCGCA	1260
Q	1213	GGCCACAGCTACTGGCAATGGGGCCCTGTTTCTGAGAGCTGCTTGGGAACACAGCGCA	1272
D	1261	GTGCCCCCTACGGGGTGTCTCTCAAGACGCACTGCCGCTGCAGCTGGGGTACACCCAGC	1320
Q	1273	GTGCCCCCTACGGGGTGTCTCTCAAGACGCACTGCCGCTGCAGCTGGGGTACACCCAGC	1332
D	1321	AGCCGGTGTCTGTGCCCCGGGAGAAAGCCCCAGGGCTGTGTGCGGCCCCCGAGAGAGGA	1380
Q	1333	AGCCGGTGTGTGTGCCCCGGGAGAAAGCCCCAGGGCTGTGTGCGGCCCCCGAGAGAGGA	1392
D	1381	CACAGACCCCCCGTGCCTGTGTGAGCTGTCGCGCCAGCACACAGCCCTGGAAGGTGA	1440
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D	1441	CGGCTGTGCGGGGCTGCTGTGCGCGGGTGTGCCCCAGGCGCTCTGGGCTCCAGGCA	1500
Q	1453	CGGCTGTGTGCGGGGCTGCTGTGCGCGGGTGTGCCCCAGGCGCTCTGGGCTCCAGGCA	1512
D	1501	CACAGAACGCGCTCTCTCAAGAAACCAAGAAATTCATCTCCCTGGGGAAGCATGCCAA	1560
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Db	1801	CAAGTTTCAAAAGCAATTGGATCTAGACAGCACTTGAAGAGGGGTGCAGCTGCGGGAGACTGTC	1860
Qy	1813	CAAGTTTCAAAAGCAATTGGATCTAGACAGCACTTGAAGAGGGGTGCAGCTGCGGGAGACTGTC	1872
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Qy	1873	GGAAGCAGAGAGTCAAGCAGCATCGGAGAACCCAGGCCCGCCCTGTGACGTCCAAGCTCCG	1932
Db	1921	CTTATCTCCCAAGCTTGACGGGCTGGGGCCGATTTGTGAACATGGACATACGTCTGTGGAGC	1980
Qy	1933	CTTATCTCCCAAGCTTGACGGGCTGGGGCCGATTTGTGAACATGGACATACGTCTGTGGAGC	1992
Db	1981	CAGAAGCTTCCGCGAGAGAAAAGAGGGCCAGAGGTCTCACACTGAGAGGTGAAGGCACTGTT	2040
Qy	1993	CAGAAGCTTCCGCGAGAGAAAAGAGGGCCAGAGGTCTCACACTGAGAGGTGAAGGCACTGTT	2052
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QY 2773 GACAGTGGTGAACCTTCCTGTAGAGACGAGGCTGGGGGACGGCTTTTGTAGAT 2832
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RESULT 13

ID US-09-026-981-35 STANDARD; DNA; UNC; 4023 BP.
AC xxxxxx
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CC Sequence 35, Application US/09026981
CC GENERAL INFORMATION:
CC APPLICANT: Counter, Christopher M.
CC APPLICANT: Meyerson, Matthew
CC APPLICANT: Weinberg, Robert A.
CC TITLE OF INVENTION: Telomerase Catalytic Subunit Gene and
CC NUMBER OF SEQUENCES: 52
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
CC STREET: Two Militia Drive
CC CITY: Lexington
CC STATE: MA
CC COUNTRY: USA
CC ZIP: 02173
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/09/026,981
CC FILING DATE: 20-FEB-1998
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 60/064,322
CC FILING DATE: 30-OCT-1997
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CC FILING DATE: 20-MAY-1997
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CC APPLICATION NUMBER: US 60/038,750
CC FILING DATE: 20-FEB-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Granahan, Patricia
CC REGISTRATION NUMBER: 32,227
CC REFERENCE/DOCKET NUMBER: WH197-11p4AM
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: 781-861-6240
CC TELEFAX: 781-861-9540
CC INFORMATION FOR SEQ ID NO: 35:
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CC LENGTH: 4023 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
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Query Match 99.6%; Score 3781; DB 49; Length 4023;
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Db	2583	GCACGCTGTGCTACGCGCGACATGAGAACACTGTTTCCGGGGATTCCGGCGGAGCGGC	26422
OY	2592	GCACGCTGTGCTACGCGCGACATGAGAACACTGTTTCCGGGGATTCCGGCGGAGCGGC	26511
Db	2643	TGCTCTCGCGCTTGTGTGGATGATTTCTGTGTGTGTACCTCACTCAACCCACGGGAAA	27022
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Db	2883	TGCGAGCGACTACTCTCCAGCTATATGCCCGGACCTCATCAGAGCCAGCTCAACCTTCAAC	29422
OY	2892	TGCGAGCGACTACTCTCCAGCTATATGCCCGGACCTCATCAGAGCCAGCTCAACCTTCAAC	29511
Db	2943	CGCGCTTCAAGCGTGGGAGGACATGCGTGCACAACTTTTGGGGCTCTTGGCGTGAAGT	30022
OY	2952	CGCGCTTCAAGCGTGGGAGGACATGCGTGCACAACTTTTGGGGCTCTTGGCGTGAAGT	30111
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OY	3132	ATCAGCAAGTTTGGAGAGACCCCAACTTTTCTGTGCGCTCATCTCTGTGACAGGCGCTCC	31911
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OY	3312	TGACTCGACACCGTGTACCTAGCTGTCATCTCTGGGGTCACTCTCAGAGACGCCAGAGCG	33711
Db	3363	AGCTGAAGTGGGAAGCTCCCGGGGAGCAAGCTGTACTCCCTGGAGGGCGGAGCCAAACCGG	34222
OY	3372	AGCTGAAGTGGGAAGCTCCCGGGGAGCAAGCTGTACTCCCTGGAGGGCGGAGCCAAACCGG	34311
Db	3423	CACGTGCCCTCAGATTTCAAACACATCTCTGGACTGATGTGGCACCCGCCACAGCAGGCGG	34822
OY	3432	CACGTGCCCTCAGATTTCAAACACATCTCTGGACTGATGTGGCACCCGCCACAGCAGGCGG	34911

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Db	3492	AGAGCAGACACACACAGCAGCCCTGTTCACGCCGGGCTCTACCTCCAGGAGAGGAGGGCGGC	3551
Db	3543	CCACACCCAGGCGCCGACCGCTGGGAGTCTGAGAGCCCTGAGTGAAGTGTGGCGGAGGGCT	3602
Qy	3552	CCACACCCAGGCGCCGACCGCTGGGAGTCTGAGAGCCCTGAGTGAAGTGTGGCGGAGGGCT	3611
Db	3603	GCATGTCCGGCTGAGAGCTGAGTGTCCGGCTGAGGCTGAGGAGTGTCCACCAAGGGC	3662
Qy	3612	GCATGTCCGGCTGAGAGCTGAGTGTCCGGCTGAGGCTGAGGAGTGTGTCCACCAAGGGC	3671
Db	3663	TGAGTGTCCAGACACACTGCGCGTCTTCACTTCCCAACAGGCTGGGCGCTCGGCTCCACCC	3722
Qy	3672	TGAGTGTCCAGACACACTGCGCGTCTTCACTTCCCAACAGGCTGGGCGCTCGGCTCCACCC	3731
Db	3723	AGGGCAGAGCTTTCTTCACAGGAGGCGCGGCTTCACCTCCCAATAGGAATAGTCATC	3782
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Db	3783	CCCAGAT 3789	
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AC	xxxxxx		
DT			
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CC	Sequence 343, Application US/08974549		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Cech, Thomas R.		
CC	APPLICANT: Lingner, Joachim		
CC	APPLICANT: Nakamura, Toru		
CC	APPLICANT: Chapman, Karen B.		
CC	APPLICANT: Morin, Gregg B.		
CC	APPLICANT: Harley, Calvin B.		
CC	APPLICANT: Andrews, William H.		
CC	TITLE OF INVENTION: Human Telomerase Catalytic Subunit		
CC	NUMBER OF SEQUENCES: 726		
CC	CORRESPONDENCE ADDRESS:		
CC	ADDRESSEE: Townsend and Townsend and Crew LLP		
CC	STREET: Two Embarcadero Center, Eighth Floor		
CC	CITY: San Francisco		
CC	STATE: California		
CC	COUNTRY: USA		
CC	ZIP: 94111-3834		
CC	COMPUTER READABLE FORM:		
CC	MEDIUM TYPE: Floppy disk		
CC	COMPUTER: IBM PC compatible		
CC	OPERATING SYSTEM: PC-DOS/MS-DOS		
CC	SOFTWARE: Patentin Release #1.0, Version #1.30		
CC	CURRENT APPLICATION DATA:		
CC	APPLICATION NUMBER: US/08/974,549		
CC	FILING DATE: 19-NOV-1997		
CC	CLASSIFICATION: 536		
CC	PRIOR APPLICATION DATA:		
CC	APPLICATION NUMBER: US 08/724,643		
CC	FILING DATE: 01-OCT-1996		
CC	PRIOR APPLICATION DATA:		
CC	APPLICATION NUMBER: US 08/844,419		
CC	FILING DATE: 18-APR-1997		
CC	PRIOR APPLICATION DATA:		
CC	APPLICATION NUMBER: US 08/846,017		
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PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/911,312
CC FILING DATE: 14-AUG-1997
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CC FILING DATE: 14-AUG-1997
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CC APPLICATION NUMBER: WO PCT/US97/17618
CC FILING DATE: 01-OCT-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: WO PCT/US97/17885
CC FILING DATE: 01-OCT-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph Ted
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002610US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 343:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 4037 base pairs
CC TYPE: nucleic acid
CC STRANDEDNESS: single
CC TOPOLOGY: linear
CC MOLECULE TYPE: cDNA
CC FEATURE:
CC NAME/KEY: CDS
CC LOCATION: 56..3454
CC OTHER INFORMATION: /note="refined sequence of hTERT cDNA"
SQ SEQUENCE 4037 BP: 682 A; 1361 C; 1276 G; 714 T; 4 OTHER.

Query Match 99.5%; Score 3778; DB 47; Length 4037;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 3781; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

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Oy 13 GCAGCGCTGCTCTCTCTGCGACGTTGGGAAGCCCTGGCCCCGGCCACCCCGCATGCC 72
Db 61 GGGCGCTCCCGCTGCGAGCGCTGGCTCCCTGCTGCGAGCCATACCGCAGGTGCT 120
Oy 73 GGGCGCTCCCGCTGCGAGCGCTGGCTCCCTGCTGCGAGCCATACCGCAGGTGCT 132
Db 121 GCGCGTGGCCAGCTTGTGCGAGCGCTGGGGGCCCAAGGCTGGGCTGGTGCAGCGCG 180
Oy 133 GCGCGTGGCCAGCTTGTGCGAGCGCTGGGGGCCCAAGGCTGGGCTGGTGCAGCGCG 192
Db 181 GGAACCGGGGCTTTCGCGCGCTGGTGGCCAGTGTGCTGGTGGCTGGCCAGGACG 240
Oy 193 GGAACCGGGGCTTTCGCGCGCTGGTGGCCAGTGTGCTGGTGGCTGGCCAGGACG 252
Db 241 AGGGGCGCCCGCGCGCGCTTCCGCGAGTGTCTGCTGCTAAGAGTGTGTGGC 300
Oy 253 AGGGGCGCCCGCGCGCGCTTCCGCGAGTGTCTGCTGCTAAGAGTGTGTGGC 312
Db 301 CGAGTGTGCGAGAGCTGTGCGAGCGCGCGGAGGAAGAGTGTGAGCTTGGCTTCCG 360
Oy 313 CGAGTGTGCGAGAGCTGTGCGAGCGCGCGGAGGAAGAGTGTGAGCTTGGCTTCCG 372
Db 361 GCTGTGAGAGGGGGCCCGCGGGGGCCCCCGAGGCGCTTACCAACAGCGTGGCAGCTA 420
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Db 421 CCGGCTCAACAGGTGACGAGCACTGGGGGGAGCGGGGCGTGGGGGTGTGCTGGC 480
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Db 481 CCGCGTGGCGAGAGCTGTGCTGCTACCTGTGCGACGCTGGCGCTCTTGTGCTGGT 540
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Oy 913 CACCTCTTTGAGAGGTGCGCTCTGTGCAAGCGGCCACTCCACCACTCCGTGGCGCCA 972
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Oy 1093 GCCCTCTTCTACTAGCTCTGTGAGGCGCCAGCTGAGCTGGCGCTGGAGGCTGTGGA 1152
Db 1141 GACCACTTTCTGTGGTCTCAAGGCGCTTGATGCCAAGGACTCCCGCAGTGTGCCCGCT 1200
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Oy 1213 GCCCGAGCGCTACTGCAATGGGGCCCTGTTCTGAGAGCTGTTGGGAACACGCGCA 1272
Db 1261 GTGCCCCCTACGGGGTCTCTCAAGACGACTGCCGCTGCGAGCTGCGGTCAACCCAG 1320
Oy 1273 GTGCCCCCTACGGGGTCTCTCAAGACGACTGCCGCTGCGAGCTGCGGTCAACCCAG 1332
Db 1321 AGCGGCTGTGTGCGCGGGGAGAAAGCCCAAGGCTGTGTGGGGCCCCCGAGAGAGGA 1380
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Oy 1453 CCGCTTGTGCGGGGCTGCTGTGCGCGGCTGTGCCCCAGGCGCTTGTGGGCTCCAGGCA 1512
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Oy 1513 CAACGAAGCGCGCTTCTCTAGGAACCAAGAACTTCACTCTCCCTGGGGAAGATGCCAA 1572
Db 1561 GCTCTGCTGCGAGAGAGTACGTGAAGATGAGCGTGGCGAGCTGGCTGGTGGCGAG 1620
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D 1621 GAGCCAGAGGGTGGCTGTGTTCGCCGCCAGAGACCGCTGTGGGTAGAGATCTTGGC 1680
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D 1681 CAACTTCTGCTACTGTGATGATGTGTAGTGTGTAGTGTGTAGTGTGTAGTGTGTAGT 1740
QY |||||||
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D 1741 TGTACAGGAGAACCAAGCTTCAAAAGAACAGGCTCTTTTCTACCGGGCCAGTGTCTGAG 1800
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D 1861 GGAAGCAGAGGTTCAGAGCAGATTCGGGAAGCAGGCGCCCTGTGACGTGCAGACTCG 1920
QY |||||||
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D 1921 CTTATCTCCCAAGCCTGACGGGCTGCGCGCATTTGTGAACATGGAATGACGTGTGGAGC 1980
QY |||||||
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QY |||||||
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D 2041 CAGCGTGTCACTACAGAGCGGGCGCGCGCGCTCTCTGGGCGCTCTGTGTGTGG 2100
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QY 3793 CCTGAT 3798
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AC xxxxxx
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CC Sequence 1, Application US/09108401
CC GENERAL INFORMATION:
CC APPLICANT: Killion, Andrzej
CC APPLICANT: Bowtell, David
CC TITLE OF INVENTION: VERTEBRATE TELOMERASE GENES AND PROTEINS AND USES
CC TITLE OF INVENTION: THEOE
CC FILE REFERENCE: 190106.407
CC CURRENT APPLICATION NUMBER: US/09/108,401
CC CURRENT FILING DATE: 1998-06-30
CC NUMBER OF SEQ ID NOS: 155
CC SOFTWARE: PatentIn Ver. 2.0
CC SEQ ID NO 1
CC LENGTH: 3964
CC TYPE: DNA
CC ORGANISM: Homo sapiens
CC SEQUENCE 3964 BP: 661 A; 1337 C; 1257 G; 709 T; 0 OTHER.
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Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 3728; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
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QY 368 TTGCGGCTGTGAGCGGGGCGCGCGGGGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 427
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Db 1021 CTGGGCGCTCTCTCTACTACGCTCTGTAGGCCCGAGCTGACTGGCGCTGAGGCTC 1080
QY 1088 CTGGGCGCTCTCTCTACTACGCTCTGTAGGCCCGAGCTGACTGGCGCTGAGGCTC 1147
Db 1081 GTGAGACCATCTTCTGTGGTGTCCAGGCCCTGGATGGCCAGGAGACCTCCCGCGAGTTGCC 1140
QY 1148 GTGAGACCATCTTCTGTGGTGTCCAGGCCCTGGATGGCCAGGAGACCTCCCGCGAGTTGCC 1207
Db 1141 CGCTGTCCCGACAGCTACTGTGCAATGCGGCCCTGTTTCTGTGAGACTGTTGGAAACAC 1200
QY 1208 CGCTGTCCCGACAGCTACTGTGCAATGCGGCCCTGTTTCTGTGAGACTGTTGGAAACAC 1267
Db 1201 GCGCAGTGCCTCTACGCGGGGTCTCTCAAGAGCACTGCGCGCTGCGAGCTCGGTACCC 1260
QY 1268 GCGCAGTGCCTCTACGCGGGGTCTCTCAAGAGCACTGCGCGCTGCGAGCTCGGTACCC 1327
Db 1261 CCAGAGCGCGGTGTGTCGCGCGGGGAGAACCCCGAGGGCTGTGTGGCGCGCGCGCGCGAG 1320
QY 1328 CCAGAGCGCGGTGTGTCGCGCGGGGAGAACCCCGAGGGCTGTGTGGCGCGCGCGCGCGAG 1387
Db 1321 GAGGACACAGACCCCGTGTGCTGTGACGCTGTCTCCGCGACAGAGCAGCCCTGTGCGAG 1380
QY 1388 GAGGACACAGACCCCGTGTGCTGTGACGCTGTCTCCGCGACAGAGCAGCCCTGTGCGAG 1447
Db 1381 GTGTACGGCTTGTGCGGGGCTGTGCTGCGCGGGGTGTGTGCCCGCAGGGCTCTGTGGGCTTC 1440
QY 1448 GTGTACGGCTTGTGCGGGGCTGTGCTGCGCGGGGTGTGTGCCCGCAGGGCTCTGTGGGCTTC 1507
Db 1441 AGGCAACAGAACCGCGCTTCTCTCAGAGAACCAAGAAATTATCTCCTGTGGGAAAGCAT 1500
QY 1508 AGGCAACAGAACCGCGCTTCTCTCAGAGAACCAAGAAATTATCTCCTGTGGGAAAGCAT 1567
Db 1501 GCGAGCTCTGCTCAGAGAGTGTACGTGTGAGAGTGTGAGAGTGTGAGAGTGTGAGAGTGTG 1560
QY 1568 GCGAAGCTCTGCTCAGAGAGTGTACGTGTGAGAGTGTGAGAGTGTGAGAGTGTGAGAGTGTG 1627
Db 1561 GCGAAGCTCTGCTCAGAGAGTGTACGTGTGAGAGTGTGAGAGTGTGAGAGTGTGAGAGTGTG 1620
QY 1628 GCGAAGCTCTGCTCAGAGAGTGTACGTGTGAGAGTGTGAGAGTGTGAGAGTGTGAGAGTGTG 1687
Db 1621 CTGGCGAAGTTCTGACATGCGTGTGATGAGTGTGTACGTGTGTGAGACTGTCTAGGCTTTTC 1680
QY 1688 CTGGCGAAGTTCTGACATGCGTGTGATGAGTGTGTACGTGTGTGAGACTGTCTAGGCTTTTC 1747
Db 1681 TTTTATGTACGAGAACCAAGCTTTCAAAAGAACAGGCTTTTCTTACCGGAAAGAGTGTTC 1740
QY 1748 TTTTATGTACGAGAACCAAGCTTTCAAAAGAACAGGCTTTTCTTACCGGAAAGAGTGTTC 1807

D	b	1741	TGGAGCAAGTTTCAAAAGCAATTGGAAATCCACAGACACTGTGAAGAGGGGCGAGCTGCGGGAG	1800
Q	y	1808	TGGAGCAAGTTTCAAAAGCAATTGGAAATCCACAGACACTGTGAAGAGGGGCGAGCTGCGGGAG	1867
D	b	1801	CTGTGGGAAGCAGAGGCTCAGGCGACATCGGGGAAGCCAGGGCCGCCCTGTGACGTCCAGA	1860
Q	y	1868	CTGTGGGAAGCAGAGGCTCAGGCGACATCGGGGAAGCCAGGGCCGCCCTGTGACGTCCAGA	1927
D	b	1861	CTCCGCTTCATCCCCAAGCCTGACGGGCTGCGGCCATTTGTGAACATGGACTACGTGCTG	1920
Q	y	1928	CTCCGCTTCATCCCCAAGCCTGACGGGCTGCGGCCATTTGTGAACATGGACTACGTGCTG	1987
D	b	1921	GGAGCCAGAACGTTCCGCGAGAGAAAAGAGGGCGGAGCGTCTCAGCTCGAGGGTGAAGGCA	1980
Q	y	1988	GGAGCCAGAACGTTCCGCGAGAGAAAAGAGGGCGGAGCGTCTCAGCTCGAGGGTGAAGGCA	2047
D	b	1981	CTGTTCAAGGCTCTCAACTACGACGCGGGCGCGGCCCTCTGCGGCGCCTCTGTG	2040
Q	y	2048	CTGTTCAAGGCTCTCAACTACGACGCGGGCGCGGCCCTCTGCGGCGCCTCTGTG	2107
D	b	2041	CTGGGCTGTGACGATATCCACAGGGCTTGGCGACCTTGCTGCTGTGTGCGGGCCAG	2100
Q	y	2108	CTGGGCTGTGACGATATCCACAGGGCTTGGCGACCTTGCTGCTGTGTGCGGGCCAG	2167
D	b	2101	GACCCGCGCCCTGAGAGTGTACTTGTCAAGGTGATGTGACGGGGCGGTTCGACACCATC	2160
Q	y	2168	GACCCGCGCCCTGAGAGTGTACTTGTCAAGGTGATGTGACGGGGCGGTTCGACACCATC	2227
D	b	2161	CCCCAGGACAGGCTCAGCGAGGCTCATCGCCAGCATCATCAAAACCCAGAACAGTACTGC	2220
Q	y	2228	CCCCAGGACAGGCTCAGCGAGGCTCATCGCCAGCATCATCAAAACCCAGAACAGTACTGC	2287
D	b	2221	GTGCGTGTGATGCGGTGTTCAGAAAGCCGCCATGAGGCACGTCCGCAAGGCTTTCAAG	2280
Q	y	2288	GTGCGTGTGATGCGGTGTTCAGAAAGCCGCCATGAGGCACGTCCGCAAGGCTTTCAAG	2347
D	b	2281	AGCCAGTGTACCTTGAACAGACCTCCAGCGGTACATGAGAGTTCGGTGCTACACTG	2340
Q	y	2348	AGCCAGTGTACCTTGAACAGACCTCCAGCGGTACATGAGAGTTCGGTGCTACACTG	2407
D	b	2341	CAGGAGACAGCCCGCTGAGGGATGCCGTGTCATGAGCAGAGAGCTTCCTCCGAATGAG	2400
Q	y	2408	CAGGAGACAGCCCGCTGAGGGATGCCGTGTCATGAGCAGAGAGCTTCCTCCGAATGAG	2467
D	b	2401	GCCAGCAGTGGCTCTTTCGACGCTCTTCTACGCTTCATGTGCCACACAGCGCGTGCATC	2460
Q	y	2468	GCCAGCAGTGGCTCTTTCGACGCTCTTCTACGCTTCATGTGCCACACAGCGCGTGCATC	2527
D	b	2461	AGGGGCAAGTCTTACGTCAGAGTGCACAGGGGATCCGCGAGGGCTCCATCCCTCCACAGCTG	2520
Q	y	2528	AGGGGCAAGTCTTACGTCAGAGTGCACAGGGGATCCGCGAGGGCTCCATCCCTCCACAGCTG	2587
D	b	2521	CTCTCAGCCTTGTGCTACAGCGACATGAGAAACAAAGCTTTTTCGAGGATTCGCGGGAG	2580
Q	y	2588	CTCTCAGCCTTGTGCTACAGCGACATGAGAAACAAAGCTTTTTCGAGGATTCGCGGGAG	2647
D	b	2581	GGGCTGTCTTCGCTGTTGGTGTGATGATTTCTTGTGGTACACCTCACTCAACCAACGCG	2640
Q	y	2648	GGGCTGTCTTCGCTGTTGGTGTGATGATTTCTTGTGGTACACCTCACTCAACCAACGCG	2707
D	b	2641	AAAACCTTCTTACAGAACCTTGTGTCGAGGTGTCCTCGAGTATGTGGCTGTGGAACCTTG	2700
Q	y	2708	AAAACCTTCTTACAGAACCTTGTGTCGAGGTGTCCTCGAGTATGTGGCTGTGGAACCTTG	2767
D	b	2701	CGGAAGACAGTGTGTAACCTTCTGTGAGAAAGAGGCGCTGGGTGGACGGCTTTTGT	2760
Q	y	2768	CGGAAGACAGTGTGTAACCTTCTGTGAGAAAGAGGCGCTGGGTGGACGGCTTTTGT	2827
D	b	2761	CAGATCGCGGCCACAGGCTATTTCCCTGTGTGCGGCTCTGCTGGATACCCGGACCTTG	2820
Q	y	2828	CAGATCGCGGCCACAGGCTATTTCCCTGTGTGCGGCTCTGCTGGATACCCGGACCTTG	2887
D	b	2821	GAGTGTCAGAGCGACTACTCCAGCTATGCCCCGAGCCTTCATCAGAGCCAGTCTCACCTTC	2880

Q	y	2888	GAGTGTCAGAGCGACTACTCCAGCTATGCCCGGACCTTCATCAGAGCCAGTCTCACCTTC	2947
D	b	2881	AACCGGGCTTTCAAAGCTGGGAGGAACATGCTGTCGCAAACTTTTGGGGCTTTCGGCTG	2940
Q	y	2948	AACCGGGCTTTCAAAGCTGGGAGGAACATGCTGTCGCAAACTTTTGGGGCTTTCGGCTG	3007
D	b	2941	AAGTGTACAGCCTGTTTCTTGATTTTCAGGTATTCAGGTAAACAGCTCCACAGCGTGTGCACAA	3000
Q	y	3008	AAGTGTACAGCCTGTTTCTTGATTTTCAGGTATTCAGGTAAACAGCTCCACAGCGTGTGCACAA	3067
D	b	3001	ATCTACAGATTCCTCCGCTGCGAGCGGTACAGGTTTACAGATATGTGTCGACACTCCCA	3060
Q	y	3068	ATCTACAGATTCCTCCGCTGCGAGCGGTACAGGTTTACAGATATGTGTCGACACTCCCA	3127
D	b	3061	TTTCATCAGCAAGTTTGAAGAAACCCACATTTTCTTCGCGCTCATCTGTGACACGGCC	3120
Q	y	3128	TTTCATCAGCAAGTTTGAAGAAACCCACATTTTCTTCGCGCTCATCTGTGACACGGCC	3187
D	b	3121	TCCCTCTGCTACTTCATCTTGAAGCCACAGACGACGAGATGTCGTGGGGCCCAAGGCG	3180
Q	y	3188	TCCCTCTGCTACTTCATCTTGAAGCCACAGACGACGAGATGTCGTGGGGCCCAAGGCG	3247
D	b	3181	GCCGCGGGCCCTGCGCCCTCGAGGGCCGTGACAGGCTGTGSCAACCAAGATTCCTCTC	3240
Q	y	3248	GCCGCGGGCCCTGCGCCCTCGAGGGCCGTGACAGGCTGTGSCAACCAAGATTCCTCTC	3307
D	b	3241	AACTACTCTGACACGCTGTACACTACGTGTCACATCTCTGCGGCTACTACAGACAGCCAG	3300
Q	y	3308	AACTACTCTGACACGCTGTACACTACGTGTCACATCTCTGCGGCTACTACAGACAGCCAG	3367
D	b	3301	AGCAGCTGTAGTGGAAAGCTCCCGGGGACGACGCTGACTGCCCTGAGGCCGACCCAAAC	3360
Q	y	3368	AGCAGCTGTAGTGGAAAGCTCCCGGGGACGACGCTGACTGCCCTGAGGCCGACCCAAAC	3427
D	b	3361	CGGGCACTGCCCTCAGACTTCAAGACCATCTGTGACTGATGTGCCACCCGCCCAAGCCAG	3420
Q	y	3428	CGGGCACTGCCCTCAGACTTCAAGACCATCTGTGACTGATGTGCCACCCGCCCAAGCCAG	3487
D	b	3421	GCCGAGAGCAGACACGACGACGCTGTGACGCGGGCGCTACGTCGCCAGGAGGAGGAGGG	3480
Q	y	3488	GCCGAGAGCAGACACGACGACGCTGTGACGCGGGCGCTACGTCGCCAGGAGGAGGAGGG	3547
D	b	3481	CGGCCCAACACCCAGGCCCGCACCGCTGGGAGTGTGAGGCTGAGTGTGTTGGCCGAG	3540

MUSE (TM)

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Tue Jun 27 15:11:18 2000; MasPar time 65.85 Seconds

Tabular output not generated. 805.717 Million cell updates/sec

Title: >US-08-951-733-20

Description: (1-1154) from US08951733.pep

Perfect Score: 8624

Sequence: 1 HASGQRCVLTMTWALAPAT.....TALPAANPALPSDFKTILD 1154

Scoring table: PAM 150

Searched: 380756 seqs, 45976785 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: a-pending
1:PS 2:U60 3:U7 4:U80 5:U81 6:U82 7:U83 8:U84A 9:U84B
10:U85 11:U86 12:U87 13:U88 14:U89 15:U90 16:U91 17:U92
18:NEWP 19:NEWU6 20:NEWU7 21:NEWU8 22:NEWU9

Statistics: Mean 40.998; Variance 197.571; scale 0.208

Prod. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	8624	100.0	1154	14	US-08-951-Sequence 20, Applicat	0.00e+00
2	8607	99.8	1189	14	US-08-974-Sequence 613, Applicat	0.00e+00
3	8607	99.8	1189	14	US-08-911-Sequence 34, Applicat	0.00e+00
4	8607	99.8	1189	14	US-08-912-Sequence 325, Applicat	0.00e+00
5	8607	99.8	1189	14	US-08-911-Sequence 34, Applicat	0.00e+00
6	8607	99.8	1200	14	US-08-911-Sequence 33, Applicat	0.00e+00
7	8607	99.8	1200	14	US-08-911-Sequence 33, Applicat	0.00e+00
8	8607	99.8	1200	14	US-08-974-Sequence 612, Applicat	0.00e+00
9	8607	99.8	1200	14	US-08-974-Sequence 324, Applicat	0.00e+00
10	8607	99.8	1285	14	US-08-974-Sequence 600, Applicat	0.00e+00
11	8607	99.8	1285	14	US-08-912-Sequence 314, Applicat	0.00e+00
12	8607	99.8	1285	14	US-08-911-Sequence 32, Applicat	0.00e+00
13	8607	99.8	1407	14	US-08-911-Sequence 55, Applicat	0.00e+00
14	8590	99.6	1407	14	US-08-911-Sequence 55, Applicat	0.00e+00
15	8590	99.6	1407	14	US-08-912-Sequence 628, Applicat	0.00e+00
16	8590	99.6	1407	14	US-08-912-Sequence 334, Applicat	0.00e+00
17	8590	99.6	1407	14	US-08-912-Sequence 334, Applicat	0.00e+00
18	8465	98.2	1132	22	US-09-108-Sequence 2, Applicatio	0.00e+00
19	8465	98.2	1132	16	US-09-128-Sequence 2, Applicatio	0.00e+00
20	8465	98.2	1132	14	US-08-911-Sequence 2, Applicatio	0.00e+00
21	8465	98.2	1132	13	US-08-854-Sequence 225, Applicat	0.00e+00

RESULT ID	1	US-08-951-733-20	STANDARD:	PRT:	1154 AA.
XX	xxxxxx				
XX	Sequence 20, Application US/08951733				
DE	Sequence 20, Application US/08951733				
CC	GENERAL INFORMATION:				
CC	APPLICANT: Harrington, Lea A.				
CC	APPLICANT: Robinson, Murray O.				
CC	TITLE OF INVENTION: NOVEL GENES ENCODING TELOMERASE PROTEINS				
CC	NUMBER OF SEQUENCES: 44				
CC	CORRESPONDENCE ADDRESS:				
CC	ADDRESS: Amgen Inc.				
CC	STREET: One Amgen Center Drive				
CC	CITY: Thousand Oaks				
CC	STATE: CA				
CC	COUNTRY: USA				
CC	ZIP: 91320-1789				
CC	COMPUTER READABLE FORM:				
CC	MEDIUM TYPE: Floppy disk				
CC	COMPUTER: IBM PC compatible				
CC	OPERATING SYSTEM: PC-DOS/MS-DOS				
CC	SOFTWARE: Patent Release #1.0, Version #1.30				
CC	CURRENT APPLICATION DATA:				
CC	APPLICATION NUMBER: US/08/951,733				
CC	FILING DATE: 16-OCT-1997				
CC	CLASSIFICATION: 435				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/873,039				
CC	FILING DATE: 11-JUN-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/751,189				
CC	FILING DATE: 15-NOV-1996				
CC	ATTORNEY/AGENT INFORMATION:				
CC	NAME: Oleski, Nancy A.				
CC	REGISTRATION NUMBER: 34,688				
CC	REFERENCE/DOCKET NUMBER: A-433B				
CC	TELECOMMUNICATION INFORMATION:				
CC	TELEPHONE: (805) 447-6504				
CC	TELEFAX: (805) 499-8011				
CC	INFORMATION FOR SEQ ID NO: 20:				

SEQUENCE CHARACTERISTICS:
CC LENGTH: 1154 amino acids
CC TYPE: amino acid
CC STRANDEDNESS: unknown
CC TOPOLOGY: unknown
CC MOLECULE TYPE: protein
SQ SEQUENCE 1154 AA; 129326 MW; 6842246 CN;

Query Match 100.0%; Score 8624; DB 14; Length 1154;
Best Local Similarity 100.0%; Pred. No. 0.00e+00;
Matches 1154; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 HASORCVLTWTEALPATPAMPAPRCRAVRSILSHREVEVLPLAFVRLIGPOGRL 60
DB 61 VORGDPAFAFALVAOCLVCVPMDBARPPAPASFRQVSCLELVAVLQRLCERGAKNYLA 120
QY 61 VORGDPAFAFALVAOCLVCVPMDBARPPAPASFRQVSCLELVAVLQRLCERGAKNYLA 120
DB 121 FGFALLDAGARGPPEAFTTSYRSTLPNTVTDALRGSGAMGILLRRVGDVYLHLLARCAL 180
QY 121 FGFALLDAGARGPPEAFTTSYRSTLPNTVTDALRGSGAMGILLRRVGDVYLHLLARCAL 180
DB 181 FVLVAPSCAYOVCPPLYQLGATQARPPHASGPRRLGGERAMNHSVREAGVPLGLPA 240
QY 181 FVLVAPSCAYOVCPPLYQLGATQARPPHASGPRRLGGERAMNHSVREAGVPLGLPA 240
DB 241 PGARRRGSGASRSLLPLKPRRGAPEPERTPVQGSWAHDKRTGSPDRGFCVVSAPAR 300
QY 241 PGARRRGSGASRSLLPLKPRRGAPEPERTPVQGSWAHDKRTGSPDRGFCVVSAPAR 300
DB 301 AEEATSLLEGALSSTRHSVSGROHHAHPBSTSRPPRWDTPCPPVYAETNHEFLYSSDK 360
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DB 361 EQLRPSFLSLSLRSLTGARLVETIFLGSRPMMGTFRRLLPQRWOKRPLFELLG 420
QY 361 EQLRPSFLSLSLRSLTGARLVETIFLGSRPMMGTFRRLLPQRWOKRPLFELLG 420
DB 421 NHAOCYGVLLTKHCPLEAAVTPAAGVCAREKPOGSVAPEEDTDPRLVQLLRHSSP 480
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DB 481 WQYGFRAACLRLLVPRGLMGSRRNERFLNKKFISLGHAKLSLOELTWKMSVRCDA 540
QY 481 WQYGFRAACLRLLVPRGLMGSRRNERFLNKKFISLGHAKLSLOELTWKMSVRCDA 540
DB 541 WLRRSPGVGCYPAAEHLREELIAKFLHMLKSVYVELLSFEFVYETTFQKNRLEFFRK 600
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DB 601 SVMSKLSIGIRQLKRVQLRELSEAEVROHREARPALLLTSRLRFIPKPDGLRPIVNDY 660
QY 601 SVMSKLSIGIRQLKRVQLRELSEAEVROHREARPALLLTSRLRFIPKPDGLRPIVNDY 660
DB 661 VVGARTRERREKARRLSRVALTSVLYNERARRPGLLGASVGLDLDIHRAMRFFVLR 720
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QY 721 AODPPPELYFKVAVNTGAYDTIPQDLREVLASIIKPPONTCVRRYAVVQAAAGHVAKA 780
DB 781 FKSHVSTLTDLPYMRQFVAHLQETSPLRDAVVEQSSSLNEASSGLEDFVLRFCMCHAV 840
QY 781 FKSHVSTLTDLPYMRQFVAHLQETSPLRDAVVEQSSSLNEASSGLEDFVLRFCMCHAV 840
DB 841 RIRKRSYVQCGIGTQGSILSLCLSGDMENKLFAGIRNDGILLRLVDFLLVTPHLLT 900
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DB 901 HAKFTLRLTVRGVPEYGCYVNLRTVNFVPEDEALGSTAFVQMPAHGLFPMCGILLDTR 960

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DB 961 TLEVOSSDYSSARTSIRASLTFFNKGFKAGNMRRKLFVGLRLCHSLFDLDQVNSIQTV 1020
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DB 1021 TNYIKILLQAYRPHACVLDLPFHQOVWKNPTFFLRVISTPASLCYSILKAKNAGSLGA 1080
QY 1021 TNYIKILLQAYRPHACVLDLPFHQOVWKNPTFFLRVISTPASLCYSILKAKNAGSLGA 1080
DB 1081 KGAGPLPSEAVOMLCHQATLKLTRRVTYVPLGSLRTAOTQLSKRLPGTTTLEAEA 1140
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DB 1141 ANPALPSDFKTIID 1154
QY 1141 ANPALPSDFKTIID 1154

RESULT 2
ID US-08-974-549-613 STANDARD; PRT: 1189 AA.
AC xxxxxx
DT
DX
DE Sequence 613, Application US/08974549
CC Sequence 613, Application US/08974549
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: Human Telomerase Catalytic Subunit
CC NUMBER OF SEQUENCES: 726
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: PatentIn Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/974,549
CC FILING DATE: 19-NOV-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/911,312

FILING DATE: 14-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/912,951
FILING DATE: 14-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/US97/17618
FILING DATE: 01-OCT-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-OCT-1997
ATTORNEY/AGENT INFORMATION:
NAME: Apple, Randolph Ted
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002610US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 613:
SEQUENCE CHARACTERISTICS:
LENGTH: 1189 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Protein
LOCATION: 1..1189
OTHER INFORMATION: /note= "fusion protein composed of
OTHER INFORMATION: melittin signal sequence and full length
OTHER INFORMATION: htrp protein"
SEQUENCE 1189 AA; 133179 MW; 7256545 CN;

Query Match 99.8%; Score 8607; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

37 ASTGRCVLLRTWEALAPATPMPAPRCRAVRSLLSHYREVLPATFVRRLGPGMWLV 96
2 ASGRCVLLRTWEALAPATPMPAPRCRAVRSLLSHYREVLPATFVRRLGPGMWLV 61
97 QRCGPAPFALVAOCVCPMDARPPAPBSFYQVSCLEKELVAVYLOLCEGAKNVLAF 156
62 QRCGPAPFALVAOCVCPMDARPPAPBSFYQVSCLEKELVAVYLOLCEGAKNVLAF 121
157 GFALLDGAARGPPEAFITSVRSYLPNTVTDLARSGAGMLLRVGDVYLHLLARCALF 216
122 GFALLDGAARGPPEAFITSVRSYLPNTVTDLARSGAGMLLRVGDVYLHLLARCALF 181
217 VLVAPSCAYQVCGPPLVQLGATQARPPHASGPRRLGCERAMNHSYREAGVPLGLPAP 276
182 VLVAPSCAYQVCGPPLVQLGATQARPPHASGPRRLGCERAMNHSYREAGVPLGLPAP 241
277 GARRRGSGASLSLPLKPRPRGGAARPEPRTVYGGGSMANHPGRTKSPSGCCVSPAPPA 336
242 GARRRGSGASLSLPLKPRPRGGAARPEPRTVYGGGSMANHPGRTKSPSGCCVSPAPPA 301
337 EEARLEGALGSTRHSHPVGRHAGPPTSRPPRPMDTQCPRYATATKKEFTVSSSGKE 396
302 EEARLEGALGSTRHSHPVGRHAGPPTSRPPRPMDTQCPRYATATKKEFTVSSSGKE 361
397 QLRPSFLLSLRPSLTGARLVETIFLGSRRPMPGTPRRRLPORXYQMRLPFLLELGN 456
362 QLRPSFLLSLRPSLTGARLVETIFLGSRRPMPGTPRRRLPORXYQMRLPFLLELGN 421
457 HAQCPYGVLLTHCPRLRAVTPAAGVCAREKPOGSAVAPBEEDIDPRRLVOLLROHSSPW 516
422 HAQCPYGVLLTHCPRLRAVTPAAGVCAREKPOGSAVAPBEEDIDPRRLVOLLROHSSPW 481
517 QVYGFVRACLRRLVPPGLMGRHNRRRLRNTKRFISLGKHAKLISLOELTKMVSVDCAW 576

QY 482 QVYGFVRACLRRLVPPGLMGRHNRRRLRNTKRFISLGKHAKLISLOELTKMVSVDCAW 541
DB 577 LRRSPGVGCYPAAEHRLREETILAKFLHMLSVYVELLRSEFFYETTFQKNRLFYRKS 636
QY 542 LRRSPGVGCYPAAEHRLREETILAKFLHMLSVYVELLRSEFFYETTFQKNRLFYRKS 601
DB 637 VMSKLSQIGIRQHILKRVQLRELSEAVERQHREARPAALLTSRLRTIPPDGRIPVNMDDY 696
QY 602 VMSKLSQIGIRQHILKRVQLRELSEAVERQHREARPAALLTSRLRTIPPDGRIPVNMDDY 661
DB 697 VGATFRERKRAERLTSRVKALFVLNTERARPRGLGASVGLDDIHRARTFYLVRVA 756
QY 662 VGATFRERKRAERLTSRVKALFVLNTERARPRGLGASVGLDDIHRARTFYLVRVA 721
DB 757 QDPPELXYFVKVDYTGAVDTIPQDLTEVIASIKPONTYCVRRYAVVQKAHGHVRAK 816
QY 722 QDPPELXYFVKVDYTGAVDTIPQDLTEVIASIKPONTYCVRRYAVVQKAHGHVRAK 781
DB 817 KSHVSTLTDLPYMRQFVAHLQETSPLRDAVYIOSSSLNASSGLFDVFLRFMCHNAVR 876
QY 782 KSHVSTLTDLPYMRQFVAHLQETSPLRDAVYIOSSSLNASSGLFDVFLRFMCHNAVR 841
DB 877 IRGKSYVQCGIIPGSLSTLSCSLCYGDMENKLFAGIRRDGLRLVDPLVTPHLTH 936
QY 842 IRGKSYVQCGIIPGSLSTLSCSLCYGDMENKLFAGIRRDGLRLVDPLVTPHLTH 901
DB 937 AKTEFLRLVRCVPEYGCYNLRKTVNFPVEDEALGTAFFVQMAHGLFPWCGLLDRT 966
QY 902 AKTEFLRLVRCVPEYGCYNLRKTVNFPVEDEALGTAFFVQMAHGLFPWCGLLDRT 961
DB 997 LEVSDVSSYARTISIRASLTFRNRFKAGRNMRKLFGLVLRKCHSLFDLOVNSLQVCT 1056
QY 962 LEVSDVSSYARTISIRASLTFRNRFKAGRNMRKLFGLVLRKCHSLFDLOVNSLQVCT 1021
DB 1057 NIYKILLQAFRFACVYQDLPEFHQVWKNPFFFLRVISDTSLSCYSILKAKNAGMSLGAK 1116
QY 1022 NIYKILLQAFRFACVYQDLPEFHQVWKNPFFFLRVISDTSLSCYSILKAKNAGMSLGAK 1081
DB 1117 GAAGPLPSEAVQWLCHQAFLLKLRHRVTVPLLSLRTAQDLSRLKPGTTTALALEAA 1176
QY 1082 GAAGPLPSEAVQWLCHQAFLLKLRHRVTVPLLSLRTAQDLSRLKPGTTTALALEAA 1141
DB 1177 NPALPSPDKTILD 1189
QY 1142 NPALPSPDKTILD 1154
RESULT 3
ID US-08-911-312A-34 STANDARD; PRT: 1189 AA.
AC xxxxxx
XX
XX
DE Sequence 34, Application US/08911312A
XX
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morlin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 171
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA

CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312A
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC AUTOREY/AGENT INFORMATION:
CC NAME: Elmhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 34:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1189 AA; 133179 MW; 7256545 CN;
SQ
Query Match 99.8%; Score 8607; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 302 EEAATSLGALSGTRSHSPVSGROHNAAGPSTSRPPRPMDDPCPPVYAETKHFLYSGDKE 361
DB 397 QLRPSFLSSLRPSLTGARRLVETIFLGRPMMPGTPRRRLPQRYOMQMRLELLGN 456
QY 362 QLRPSFLSSLRPSLTGARRLVETIFLGRPMMPGTPRRRLPQRYOMQMRLELLGN 421
DB 457 HQCPYGVILTKHCELRVAAYTPAAGVCAREKPOGSAAPAEEDTDPRRLVOLLRHSSFW 516
QY 422 HQCPYGVILTKHCELRVAAYTPAAGVCAREKPOGSAAPAEEDTDPRRLVOLLRHSSFW 481
DB 517 QYGFVRACLRRLVPPGLMGSRHNRERFLRNTKFTSLGKNAKLSLOELTMGSRDCAM 576
QY 482 QYGYFVRACLRRLVPPGLMGSRHNRERFLRNTKFTSLGKNAKLSLOELTMGSRDCAM 541
DB 577 LRSPGVGCVPAAEHRLREELIAKFLHMLMSYVVELLRSEFYVETETFOKNRLEFFYRKS 636
QY 542 LRSPGVGCVPAAEHRLREELIAKFLHMLMSYVVELLRSEFYVETETFOKNRLEFFYRKS 601
DB 637 VMSKQSIGIRQHLKRVQURELSEAEVROHREARAPALLTSRLFTPKPDGLRPYVMDYV 696
QY 602 VMSKQSIGIRQHLKRVQURELSEAEVROHREARAPALLTSRLFTPKPDGLRPYVMDYV 661
DB 697 VGARTFRREKRAERLTSRKALFSYLNTERARAPGLGASVGLDDIRRAMTFVLRVA 756
QY 662 VGARTFRREKRAERLTSRKALFSYLNTERARAPGLGASVGLDDIRRAMTFVLRVA 721
DB 757 QDPPELYFVKVDVTGAYDTLPQDRLEVIASIIKPNQTYCVRRAYVOKAHGVRRAF 816
QY 722 QDPPELYFVKVDVTGAYDTLPQDRLEVIASIIKPNQTYCVRRAYVOKAHGVRRAF 781
DB 817 KSHVSTLTDLOQYMQFAHLOETSPRLDAVYIEOSSSLNESSGLFVFLFPMCHHAVR 876
QY 782 KSHVSTLTDLOQYMQFAHLOETSPRLDAVYIEOSSSLNESSGLFVFLFPMCHHAVR 841
DB 877 IRGKSYVOCQIPQGISITLLCSLCYGDMEKRLPAGIRBDGLRLVDDFLVTPHLTH 936
QY 842 IRGKSYVOCQIPQGISITLLCSLCYGDMEKRLPAGIRBDGLRLVDDFLVTPHLTH 901
DB 937 AKFTLRLVGRVPEYEGCVVNLKTYVNEPVEDALGTAIFYOMPAHGLFPWCGLLDTRT 996
QY 902 AKFTLRLVGRVPEYEGCVVNLKTYVNEPVEDALGTAIFYOMPAHGLFPWCGLLDTRT 961
DB 997 LEVQSDSYATSTRASITFRGKAGRNMRKLFGLRLKCHSLFDLDVQNSIQTYCT 1056
QY 962 LEVQSDSYATSTRASITFRGKAGRNMRKLFGLRLKCHSLFDLDVQNSIQTYCT 1021
DB 1057 NIYKILLQAYRFFHACVLOLPHQOVMKNPTFELRVISDTASLCYSIIKAKNAGSLGAK 1116
QY 1022 NIYKILLQAYRFFHACVLOLPHQOVMKNPTFELRVISDTASLCYSIIKAKNAGSLGAK 1081
DB 1117 GAAGPLPSEAVQWLCHQAFLLKLTTRHRTVYVPLGLSLRTAOTLSRKLPGLTTLAEAA 1176
QY 1082 GAAGPLPSEAVQWLCHQAFLLKLTTRHRTVYVPLGLSLRTAOTLSRKLPGLTTLAEAA 1141
DB 1177 NPALPSDEFTIID 1189
QY 1142 NPALPSDEFTIID 1154
RESULT 4
ID US-08-912-951-325 STANDARD: PRT: 1189 AA.
AC xxxxxx
XX
XX
XX
XX
DE Sequence 325, Application US/08912951
CC Sequence 325, Application US/08912951
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lindner, Joachim
CC APPLICANT: Nakamura, Toru

CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC TITLE OF INVENTION: THERAPEUTIC METHODS
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent In Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-002600US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 325:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1189 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1189 AA; 133179 MW; 7256545 CN;
SQ
Query Match 99.8%; Score 8607; DB 14; Length 1189;
Best Local Similarity 99.98; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 122 GFALLDAGRGPEAFRTTSVRSLPTNTVTDALRGSGAMGLLRVGGDDVYLHLLARCALF 181
DB 217 VLAVSCAYVCGPPLYLQGAATQARPPPHASGPRRRRLGCERAMNHSVREAGVPLGLPAP 276
QY 182 VLAVSCAYVCGPPLYLQGAATQARPPPHASGPRRRRLGCERAMNHSVREAGVPLGLPAP 241
DB 277 GARRRGGSASRLPLPKPRRGAAPERTPVYQGSMAHPGTRPSDRGFCVVSAPARA 336
QY 242 GARRRGGSASRLPLPKPRRGAAPERTPVYQGSMAHPGTRPSDRGFCVVSAPARA 301
DB 337 EATSLLEGALSTGRSHSPVGRQHNAGPSTSRPPMDPCPPYAEKHLFYSGDKE 396
QY 302 EATSLLEGALSTGRSHSPVGRQHNAGPSTSRPPMDPCPPYAEKHLFYSGDKE 361
DB 397 QLRPSFLSLSRPSLTGARLVETIFLGRPMWPGTPRRPLPORVWQMRPLFELLGN 456
QY 362 QLRPSFLSLSRPSLTGARLVETIFLGRPMWPGTPRRPLPORVWQMRPLFELLGN 421
DB 457 HAOCYGYVLTKHCPRAAVTPAAGVCAAREKPGQSVAAPEEDTDPRLVOLLRQHSFPW 516
QY 422 HAOCYGYVLTKHCPRAAVTPAAGVCAAREKPGQSVAAPEEDTDPRLVOLLRQHSFPW 481
DB 517 QYGFYVACLRRLVPPGLMGRSHNERFRLNTKFTSLGKNAKLSLOELTWKSVRDCAM 576
QY 482 QYGFYVACLRRLVPPGLMGRSHNERFRLNTKFTSLGKNAKLSLOELTWKSVRDCAM 541
DB 577 LRRSPGVGCPAAEHRRLREELIAKFLHMLSVYVELLSRFYVETETFPQKNRLFYRKS 636
QY 542 LRRSPGVGCPAAEHRRLREELIAKFLHMLSVYVELLSRFYVETETFPQKNRLFYRKS 601
DB 637 VMSKLQSIGIRQHLKRVOLRELSAEVNRQHRARALLTSRLFTPKPGLRPIYVMDV 696
QY 602 VMSKLQSIGIRQHLKRVOLRELSAEVNRQHRARALLTSRLFTPKPGLRPIYVMDV 661
DB 697 VGARTFRREKRAERLTSRYKALFSVLYNTERARPPGLGASVGLDIIHAWRTFYLRYA 756
QY 662 VGARTFRREKRAERLTSRYKALFSVLYNTERARPPGLGASVGLDIIHAWRTFYLRYA 721
DB 757 QDPPELYFKVDYTGAYDTIPQDRLTEVIAIIRPONTYCVRRYAVVQKAAHGHYKAF 816
QY 722 QDPPELYFKVDYTGAYDTIPQDRLTEVIAIIRPONTYCVRRYAVVQKAAHGHYKAF 781
DB 817 KSHVSTLTDLOPYMRFVAHLOETSPLRDAVYIEOSSISNESSGIFDYFLRPMCHAVR 876
QY 782 KSHVSTLTDLOPYMRFVAHLOETSPLRDAVYIEOSSISNESSGIFDYFLRPMCHAVR 841
DB 877 TNGKSVYOCQIPQGSITLTLCSLCYGDMEKRLFGIRRDGLLRVYDDFLLVPHLTH 936
QY 842 TNGKSVYOCQIPQGSITLTLCSLCYGDMEKRLFGIRRDGLLRVYDDFLLVPHLTH 901
DB 937 AKFTLTLVGVPEYGCYVNLKRTVYVNFVEDEALGTAFAVQMPAHGLFPWCGLLDTRT 996
QY 902 AKFTLTLVGVPEYGCYVNLKRTVYVNFVEDEALGTAFAVQMPAHGLFPWCGLLDTRT 961
DB 997 LEVQSDSYSTARTSTRASLTFRNGRAGRNMRKLFVYLKCHSLFDLQVNSLOTVCT 1056
QY 962 LEVQSDSYSTARTSTRASLTFRNGRAGRNMRKLFVYLKCHSLFDLQVNSLOTVCT 1021
DB 1057 NIYKILLQAYRFFHACVLDLPFHQOYWKNPTEFLRYSPTASLCYSILAKNAGMSLGAK 1116
QY 1022 NIYKILLQAYRFFHACVLDLPFHQOYWKNPTEFLRYSPTASLCYSILAKNAGMSLGAK 1081
DB 1117 GAAGPLPSEAVOMLCHQAFLLKLTIRHVTYVPLDLSLRTAQOLSRKPLGTTLTALAEAA 1176
QY 1082 GAAGPLPSEAVOMLCHQAFLLKLTIRHVTYVPLDLSLRTAQOLSRKPLGTTLTALAEAA 1141
DB 1177 NPALPSDEFTIID 1189
QY 1142 NPALPSDEFTIID 1154
RESULT 5
ID US-08-911-312-34 STANDARD; PRT; 1189 AA.

XX
AC
XX
XX
XX
DE
XX

Sequence 34, Application US/08911312

Sequence 34, Application US/08911312

GENERAL INFORMATION:
APPLICANT: Cech, Thomas R.
APPLICANT: Lingner, Joachim
APPLICANT: Nakamura, Toru
APPLICANT: Chapman, Karen B.
APPLICANT: Molin, Gregg B.
APPLICANT: Hatley, Calvin B.
APPLICANT: Andrews, William
TITLE OF INVENTION: Telomerase Reverse Transcriptase
NUMBER OF SEQUENCES: 170
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STATE: California
COUNTRY: USA
ZIP: 94111-3834

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/911,312
FILING DATE: 14-AUG-1997

CLASSIFICATION: 536

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/854,050
FILING DATE: 09-MAY-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/912,951
FILING DATE: 14-AUG-1997

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: Einhorn, Gregory P.
REGISTRATION NUMBER: 38,440

REFERENCE/DOCKET NUMBER: 015389-002500US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300

INFORMATION FOR SEQ. ID NO. 34:
SEQUENCE CHARACTERISTICS:
LENGTH: 1189 amino acids
TYPE: amino acid

STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: protein

SEQUENCE 1189 AA: 13179 MW: 7256545 CN:

Query Match 99.8%; Score 8607; DB 14; Length 1189;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;

Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db	37	ASTORCVLLRTWEALAPATPAMPAPRCRAVRSLSSHYREVLPLATFYVRLPGPOGRWV	96
Qy	2	ASGRCVLLRTWEALAPATPAMPAPRCRAVRSLSSHYREVLPLATFYVRLPGPOGRWV	61
Db	97	QRGDDPAAFRALVAQCLVCEWMDARPPPAAPSFRVOSCLKELVARVLORLCERGAKNVLA	156
Qy	62	QRGDDPAAFRALVAQCLVCEWMDARPPPAAPSFRVOSCLKELVARVLORLCERGAKNVLA	121
Db	157	GFLLDLSARGGPEAFVTSVRSYLPNTVDALGSGAMGILLRVGDDVYVHLACALF	216
Qy	122	GFLLDLSARGGPEAFVTSVRSYLPNTVDALGSGAMGILLRVGDDVYVHLACALF	181
Db	217	VLYAPSCAYVCGPPPLYQLGAATQARPPPAASGPRRLGGERAMNNSVREAGVPLGAP	276
Qy	182	VLYAPSCAYVCGPPPLYQLGAATQARPPPAASGPRRLGGERAMNNSVREAGVPLGAP	241
Db	277	GARRRGASASRLPLKRRPRGAAPERTPVQGSMAHPGRTGSPDGCYVSPARPA	336
Qy	242	GARRRGASASRLPLKRRPRGAAPERTPVQGSMAHPGRTGSPDGCYVSPARPA	301
Db	337	EEATSLGALSGTRHSHPSVGRQHHAGPETSRRPPMDTCCPPVYAEKTHFLYSSGDKE	396
Qy	302	EEATSLGALSGTRHSHPSVGRQHHAGPETSRRPPMDTCCPPVYAEKTHFLYSSGDKE	361
Db	397	QLRPSFLSLRSLTGARRLVETIFLGSNPMWPGTTPRRLPLRQRYWQMRPLFLELGN	456
Qy	362	QLRPSFLSLRSLTGARRLVETIFLGSNPMWPGTTPRRLPLRQRYWQMRPLFLELGN	421
Db	457	HAQCPYVLLKTCPLRAAVTPAAGVCAKPKPGSVAAPPEEDTPRRLLVQLLRQSSPW	516
Qy	422	HAQCPYVLLKTCPLRAAVTPAAGVCAKPKPGSVAAPPEEDTPRRLLVQLLRQSSPW	481
Db	517	QYVGFVACLRRLVPPGLMGSRNERNRFLNKKFISLGHAKLSLOELTWKMSVDCAW	576
Qy	482	QYVGFVACLRRLVPPGLMGSRNERNRFLNKKFISLGHAKLSLOELTWKMSVDCAW	541
Db	577	LRRSPGVGCYPAAEHRLREELIAKFLHMLMSVYVVELLSFFVETTTQKNRLFYRKS	636
Qy	542	LRRSPGVGCYPAAEHRLREELIAKFLHMLMSVYVVELLSFFVETTTQKNRLFYRKS	601
Db	637	VMSKLSIGIRQLKRYQLRELSEAEVQRREKAPALLSRLFLIRKPDGLRIYVMKVY	696
Qy	602	VMSKLSIGIRQLKRYQLRELSEAEVQRREKAPALLSRLFLIRKPDGLRIYVMKVY	661
Db	697	VGARTFRERKARSLTSRYVALFSVLYNTERARRPGLLGASVGLDDIHRAMRFVYRVRA	756
Qy	662	VGARTFRERKARSLTSRYVALFSVLYNTERARRPGLLGASVGLDDIHRAMRFVYRVRA	721
Db	757	QDPPPELYEVKVDVTAAYDTIPQDRLTEVIASIIKPPNTYCVARYAVOAKAHGVRKAF	816
Qy	722	QDPPPELYEVKVDVTAAYDTIPQDRLTEVIASIIKPPNTYCVARYAVOAKAHGVRKAF	781
Db	817	KSHVSTLTDIOPYMROFVAHLQETSPLRDVAVIEQSSSINAEASGFLVDFLRMCHHAYR	876
Qy	782	KSHVSTLTDIOPYMROFVAHLQETSPLRDVAVIEQSSSINAEASGFLVDFLRMCHHAYR	841
Db	877	IRKSYVOCGIPQSGILSTLCSLCYGMENKLFAGIRRDGILLRLVYDDELVTYHHLTH	936
Qy	842	IRKSYVOCGIPQSGILSTLCSLCYGMENKLFAGIRRDGILLRLVYDDELVTYHHLTH	901
Db	937	AKTFELTLVAGVEYGCYVNLARTVYNFVDEBALGTAFAVQPAHAGLFPWCGILLDTPT	996
Qy	902	AKTFELTLVAGVEYGCYVNLARTVYNFVDEBALGTAFAVQPAHAGLFPWCGILLDTPT	961
Db	997	LEVQSDSYSAKTSIASALTNNNGFAGRMKRLGCVLRKCHSLFLDLQVNSLDTVCT	1056
Qy	962	LEVQSDSYSAKTSIASALTNNNGFAGRMKRLGCVLRKCHSLFLDLQVNSLDTVCT	1021
Db	1057	NIYKILLQAYRPHACVLOLPHQOYWKNPFTFLRVISPTASLCYSILAKNAGMSLGAK	1116
Qy	1022	NIYKILLQAYRPHACVLOLPHQOYWKNPFTFLRVISPTASLCYSILAKNAGMSLGAK	1081

DB 1117 GAAGPSPSAVOMLCHQATLTKTRRVTYVPLGSLRTAQOTLSKRKPGTTITALEAAA 1176
1117 NPALPSDFKTIID 1189
1117 NPALPSDFKTIID 1154
1142 NPALPSDFKTIID 1154

RESULT 6
ID US-08-911-312A-33 STANDARD: PRT: 1200 AA.
AC xxxxxx

Sequence 33, Application US/08911312A
Sequence 33, Application US/08911312A
GENERAL INFORMATION:
APPLICANT: Cech, Thomas R.
APPLICANT: Lingner, Joachim
APPLICANT: Nakamura, Toru
APPLICANT: Chapman, Karen B.
APPLICANT: Morin, Gregg B.
APPLICANT: Harley, Calvin B.
APPLICANT: Andrews, William
TITLE OF INVENTION: Telomerase Reverse Transcriptase
NUMBER OF SEQUENCES: 171
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STATE: California
COUNTRY: USA
ZIP: 94111-3834

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/911,312A
FILING DATE: 14-AUG-1997
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
PRIOR APPLICATION DATA:
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FILING DATE: 14-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: Einhorn, Gregory P.
REGISTRATION NUMBER: 38,440
REFERENCE/DOCKET NUMBER: 015389-002500US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200

CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 33:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1200 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1200 AA; 134322 MW; 7387257 CN;

Query Match 99.8%; Score 8607; DB 14; Length 1200;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 48 ASTORCVLLRTWEALAPATPAMPRAPCRAVSLRSHRYEVLPLATFVRLPGQGRV 107
1117 NPALPSDFKTIID 1189
2 ASGQRVCVLLRTWEALAPATPAMPRAPCRAVSLRSHRYEVLPLATFVRLPGQGRV 51
DB 108 QRGDPAFAFALVAQCLVCPMDARPPAPSPROYSCLELYARVQLRCERGAKNVLA 167
1117 NPALPSDFKTIID 1189
62 QRGDPAFAFALVAQCLVCPMDARPPAPSPROYSCLELYARVQLRCERGAKNVLA 121
DB 168 GRLALDGARGPPEAFTTSVRSYLPNTVDALRGSGAMGLLRVGDVLYHLARCALE 227
1117 NPALPSDFKTIID 1189
122 GRLALDGARGPPEAFTTSVRSYLPNTVDALRGSGAMGLLRVGDVLYHLARCALE 181
DB 228 VVAPSCAYVCGPPLYQLGAATQAPRPPHAGSPRRRLCCEBAMNHSVEAGVPLGLPAP 287
1117 NPALPSDFKTIID 1189
182 VVAPSCAYVCGPPLYQLGAATQAPRPPHAGSPRRRLCCEBAMNHSVEAGVPLGLPAP 241
DB 288 GARRRGGSASRSLPLPKRRRGAAPPERTPVGQGSMAHPGRTGSDGFCVSPARPA 347
1117 NPALPSDFKTIID 1189
242 GARRRGGSASRSLPLPKRRRGAAPPERTPVGQGSMAHPGRTGSDGFCVSPARPA 301
DB 348 EPEATSLEGALSGRSHSPVSGROHNGAPSTSRPPWPTPCPPVYAEKHFLYSSGDE 407
1117 NPALPSDFKTIID 1189
302 EPEATSLEGALSGRSHSPVSGROHNGAPSTSRPPWPTPCPPVYAEKHFLYSSGDE 361
DB 408 QLRFPSFLSLRPSLTGARLVETIFLGSPPMMPGTPRLPRLPORWQMRPLFLELGN 467
1117 NPALPSDFKTIID 1189
362 QLRFPSFLSLRPSLTGARLVETIFLGSPPMMPGTPRLPRLPORWQMRPLFLELGN 421
DB 468 HQCPYGVLLKTHCPRLRAAVTPAAGYCAKPOGSAABEEDTDRLVOLLROHSSPW 527
1117 NPALPSDFKTIID 1189
422 HQCPYGVLLKTHCPRLRAAVTPAAGYCAKPOGSAABEEDTDRLVOLLROHSSPW 481
DB 528 OYVGFVACLRLVPRGLTSGSRHNERFLNKKFSLGKHAHKLSDQLTWKMSVDCAM 587
1117 NPALPSDFKTIID 1189
482 OYVGFVACLRLVPRGLTSGSRHNERFLNKKFSLGKHAHKLSDQLTWKMSVDCAM 541
DB 588 LRRSPGVGCVPAEHRRLREIILAKFLHMLMSYVVELLSFFVYETTFQKNRLFYRKS 647
1117 NPALPSDFKTIID 1189
542 LRRSPGVGCVPAEHRRLREIILAKFLHMLMSYVVELLSFFVYETTFQKNRLFYRKS 601
DB 648 VMSKLOSIGIRQHLKRVOLRELSAEVROHREARPALTSRLRFIRKPDGLRPIYVMDYV 707
1117 NPALPSDFKTIID 1189
602 VMSKLOSIGIRQHLKRVOLRELSAEVROHREARPALTSRLRFIRKPDGLRPIYVMDYV 661
DB 708 VGARTRFRERKRAERLTSRKALFSVLYTERARPPGLGASVGLDDIHAMRFVLRVA 767
1117 NPALPSDFKTIID 1189
662 VGARTRFRERKRAERLTSRKALFSVLYTERARPPGLGASVGLDDIHAMRFVLRVA 721
DB 768 ODPEPELYFVKYDVYGAJDITIPQDRLEVIASIIKPNQYCYRRAVYVVOKAHGHYKAF 827
1117 NPALPSDFKTIID 1189
722 ODPEPELYFVKYDVYGAJDITIPQDRLEVIASIIKPNQYCYRRAVYVVOKAHGHYKAF 781
DB 828 KSHVSTLTDLPQPMROFVAHLOETSPLRDAVYIEGSSSLNEASSGLFDVFLRPMCHNAV 887
1117 NPALPSDFKTIID 1189
782 KSHVSTLTDLPQPMROFVAHLOETSPLRDAVYIEGSSSLNEASSGLFDVFLRPMCHNAV 841
DB 888 IKGKSVVQCGIPQGSILSTLCSLCYGMENKLPFGIRRDGLLRVYDDFLVYPLHLN 947
1117 NPALPSDFKTIID 1189
842 IKGKSVVQCGIPQGSILSTLCSLCYGMENKLPFGIRRDGLLRVYDDFLVYPLHLN 901

D	b	768	ODPEPELFXKVDYTGAVYDPIIDODRLTEVYIASIRKQNTYCYRRAYVQKAAHGHVRAAF	827
O	y	722	QDDPEPELFXKVDYTGAVYDPIIDODRLTEVYIASIRKQNTYCYRRAYVQKAAHGHVRAAF	781
D	b	828	KSHSTLTLDOPMYRQGVVAHLOETSPLRDAVVEQSSSLNEASSGLFDFVLFKMGHAAVR	887
O	y	782	KSHSTLTLDOPMYRQGVVAHLOETSPLRDAVVEQSSSLNEASSGLFDFVLFKMGHAAVR	841
D	b	888	IRKSYVOCGIRPGSITLLCSLCYGDMEKMLFAGIRRDGILLRLVYDFLLVTPHLTH	947
O	y	842	IRKSYVOCGIRPGSITLLCSLCYGDMEKMLFAGIRRDGILLRLVYDFLLVTPHLTH	901
D	b	948	AKTFLRLVGVPEYGCVVNLKRTVYVNPVEDALCGTAFVQMPAHGLEPPMGGLLDRT	1007
O	y	902	AKTFLRLVGVPEYGCVVNLKRTVYVNPVEDALCGTAFVQMPAHGLEPPMGGLLDRT	961
D	b	1008	LEVQSDYSYARTSIRASLTFNNGFKAGRMARKEFGVLRKCHSLFDLDQVNSIQTYCT	1067
O	y	962	LEVQSDYSYARTSIRASLTFNNGFKAGRMARKEFGVLRKCHSLFDLDQVNSIQTYCT	1021
D	b	1068	NIYKILLQAVRFHACVLOLPEHQOYWKNPTEFLRVISDTASLCYSIILKAKNAGMSIGAK	1127
O	y	1022	NIYKILLQAVRFHACVLOLPEHQOYWKNPTEFLRVISDTASLCYSIILKAKNAGMSIGAK	1081
D	b	1128	GAAPLSEAVOMICHOAFILKTLRHRVYVPLLSGLTFAFOQLSKRLDGTTLTLEAA	1187
O	y	1082	GAAPLSEAVOMICHOAFILKTLRHRVYVPLLSGLTFAFOQLSKRLDGTTLTLEAA	1141
D	b	1188	NPALPSDFKTIID 1200	
O	y	1142	NPALPSDFKTIID 1154	
RESULT		8		
ID	US-08-974-549-612	STANDARD;	PRT;	1200 AA.
XX	xxxxxx			
DE	Sequence 612, Application US/08974549			
CC	GENERAL INFORMATION:			
CC	APPLICANT: Cech, Thomas R.			
CC	APPLICANT: Lingner, Joachim			
CC	APPLICANT: Nakamura, Toru			
CC	APPLICANT: Chapman, Karen B.			
CC	APPLICANT: Morin, Gregg B.			
CC	APPLICANT: Harley, Calvin B.			
CC	APPLICANT: Andrews, William H.			
CC	TITLE OF INVENTION: Human Telomerase Catalytic Subunit			
CC	NUMBER OF SEQUENCES: 726			
CC	CORRESPONDENCE ADDRESS:			
CC	ADDRESSEE: Townsend and Townsend and Crew LLP			
CC	STREET: Two Embarcadero Center, Eighth Floor			
CC	CITY: San Francisco			
CC	STATE: California			
CC	COUNTRY: USA			
CC	ZIP: 94111-3834			
CC	COMPUTER READABLE FORM:			
CC	MEDIUM TYPE: Floppy disk			
CC	COMPUTER: IBM PC compatible			
CC	OPERATING SYSTEM: PC-DOS/MS-DOS			
CC	SOFTWARE: PatentIn Release #1.0, Version #1.30			
CC	CURRENT APPLICATION DATA:			
CC	APPLICATION NUMBER: US/08/974,549			
CC	FILING DATE: 19-NOV-1997			
CC	CLASSIFICATION: 536			
CC	PRIOR APPLICATION DATA:			
CC	APPLICATION NUMBER: US 08/724,643			
CC	FILING DATE: 01-OCT-1996			

CC	Prior Application Data:	US 08/844,419
CC	Application Number: US 08/844,419	
CC	Filing Date: 18-Apr-1997	
CC	Prior Application Data:	
CC	Application Number: US 08/846,017	
CC	Filing Date: 25-Apr-1997	
CC	Prior Application Data:	
CC	Application Number: US 08/851,843	
CC	Filing Date: 06-May-1997	
CC	Prior Application Data:	
CC	Application Number: US 08/854,050	
CC	Filing Date: 09-May-1997	
CC	Prior Application Data:	
CC	Application Number: US 08/911,312	
CC	Filing Date: 14-Aug-1997	
CC	Prior Application Data:	
CC	Application Number: US 08/912,951	
CC	Filing Date: 14-Aug-1997	
CC	Prior Application Data:	
CC	Application Number: US 08/915,503	
CC	Filing Date: 14-Aug-1997	
CC	Prior Application Data:	
CC	Application Number: WO PCT/US97/17618	
CC	Filing Date: 01-Oct-1997	
CC	Prior Application Data:	
CC	Application Number: WO PCT/US97/17885	
CC	Filing Date: 01-Oct-1997	
CC	Attorney/Agent Information:	
CC	Name: Apple, Randolph Ted	
CC	Registration Number: 36,429	
CC	Reference/Docket Number: 013589-00261005	
CC	Telecommunication Information:	
CC	Telephone: (415) 576-0200	
CC	Telefax: (415) 576-0300	
CC	Information for SEQ ID NO: 612:	
CC	Sequence Characteristics:	
CC	Length: 1200 amino acids	
CC	Type: amino acid	
CC	Strandedness:	
CC	Topology: linear	
CC	Molecule type: protein	
CC	Feature:	
CC	Name/Key: Protein	
CC	Location: 1..1200	
CC	Other Information: /note= "fusion protein composed of His6	
CC	Other Information: and Anti-Xpress tags, enterokinase	
CC	Other Information: cleavage site and full length hTMT	
CC	Other Information: protein"	
CC	Other Information: protein"	
CC	Sequence 1200 AA: 134322 MW: 7387257 CN:	
CC	Query Match 99.8%; Score 8607; DB 14; Length 1200;	
CC	Best Local Similarity 99.9%; Pred. No. 0.00e+00;	
CC	Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0	
CC	48 ASTORCVLLRTWEALAPATPAMPRAPRACRAVRSLSLRSHYREVLPLATFFRRLLGFGQGRLLV 107	
CC	2 ASGQRCVLLRTWEALAPATPAMPRAPRACRAVRSLSLRSHYREVLPLATFFRRLLGFGQGRLLV 61	
CC	108 QNGDPAARFALVAGCLVCPMDARRPPAPSPFROYSCSLKELVAVYVLDLRCRGAKNVLAF 167	
CC	62 QNGDPAARFALVAGCLVCPMDARRPPAPSPFROYSCSLKELVAVYVLDLRCRGAKNVLAF 121	
CC	166 GALLDGAARGGPEPEFTSVSYSLPNTVTDALRSGAGMLLRVGDVVLVHLARCALF 227	
CC	122 GFALLDGAARGGPEPEFTSVSYSLPNTVTDALRSGAGMLLRVGDVVLVHLARCALF 161	
CC	228 VLVAASCAYOVCGPPLYLGAATQARPPPHASGPRRLGECERANNHVSREAGVPLGLPAP 287	
CC	182 VLVAASCAYOVCGPPLYLGAATQARPPPHASGPRRLGECERANNHVSREAGVPLGLPAP 241	
CC	288 GARRRGGSASNSLPLPKPRRGAADEPRRTVVGCGSMAHPGRTIGPSDRGCVVSPARPA 347	
CC	242 GARRRGGSASNSLPLPKPRRGAADEPRRTVVGCGSMAHPGRTIGPSDRGCVVSPARPA 301	

Db 348 EBAATSEALSGTRHSHPSVGRQHHAGPSTSPRPWDTPCPVPYAEKHFLLYSSGDKE 407
| | | | |
Qy 302 EBAATSEALSGTRHSHPSVGRQHHAGPSTSPRPWDTPCPVPYAEKHFLLYSSGDKE 361
| | | | |
Db 408 QLRPSFLSSRLSLGARLVETIFLGSRPMPGTPRRLPRLPQRYWQMRPLFELLGN 467
| | | | |
Qy 362 QLRPSFLSSRLSLGARLVETIFLGSRPMPGTPRRLPRLPQRYWQMRPLFELLGN 421
| | | | |
Db 468 HAQCPYVLTKTCPLRAATPAAGVCAREKPGGSVAAPPEEDTDPRLVQLRQHSPPM 527
| | | | |
Qy 422 HAQCPYVLTKTCPLRAATPAAGVCAREKPGGSVAAPPEEDTDPRLVQLRQHSPPM 481
| | | | |
Db 528 QYGFYRACLRLLVPPGLMGSRRNERRELFNKKFTSLGKHAFLSLQELTWKMSVDCAW 567
| | | | |
Qy 482 QYGFYRACLRLLVPPGLMGSRRNERRELFNKKFTSLGKHAFLSLQELTWKMSVDCAW 541
| | | | |
Db 588 LRSPGVGCVPAEHRRLREILAKFLHMLSVYVELLSFEFVETTPQKNLFYRKS 647
| | | | |
Qy 542 LRSPGVGCVPAEHRRLREILAKFLHMLSVYVELLSFEFVETTPQKNLFYRKS 601
| | | | |
Db 648 VMSKLSIGIRQLKRVQRLSEAEVQRHREARPALTLRLFIKPKDGLRPIVNDYV 707
| | | | |
Qy 602 VMSKLSIGIRQLKRVQRLSEAEVQRHREARPALTLRLFIKPKDGLRPIVNDYV 661
| | | | |
Db 708 VGARTRRREKRAERLTSRYKALFVLYNERARPPGLGASVLDLDIRAMRTFVLVRA 767
| | | | |
Qy 662 VGARTRRREKRAERLTSRYKALFVLYNERARPPGLGASVLDLDIRAMRTFVLVRA 721
| | | | |
Db 768 ODPPELYFVKVDVAYDITIPQDLTEVASIIRKPNITCVRYAVVOCAAGHVKAP 827
| | | | |
Qy 722 ODPPELYFVKVDVAYDITIPQDLTEVASIIRKPNITCVRYAVVOCAAGHVKAP 781
| | | | |
Db 828 KSHVSTLTLQPYMKROFVAHLOETSPLRDAVVIQSSSLNEASSGLFDVFLRFMCHNAVR 887
| | | | |
Qy 782 KSHVSTLTLQPYMKROFVAHLOETSPLRDAVVIQSSSLNEASSGLFDVFLRFMCHNAVR 841
| | | | |
Db 888 INKSTVVOCGITQGSILSTLSCLCYGMENKLPAGIRPDGLLLRLVDDLLVTPHLTH 947
| | | | |
Qy 842 INKSTVVOCGITQGSILSTLSCLCYGMENKLPAGIRPDGLLLRLVDDLLVTPHLTH 901
| | | | |
Db 948 AKTFLRLVGVPEYGCYVNLKRTVYNFPEYEDALGTAIVOMPAHGLFPWGLLIDTRT 1007
| | | | |
Qy 902 AKTFLRLVGVPEYGCYVNLKRTVYNFPEYEDALGTAIVOMPAHGLFPWGLLIDTRT 961
| | | | |
Db 1008 LEVQSDYSSYARTSIRASLTENRGEFAGRNMRKLFGLVRLKCHSLFDLDQVNSLQTVCT 1067
| | | | |
Qy 962 LEVQSDYSSYARTSIRASLTENRGEFAGRNMRKLFGLVRLKCHSLFDLDQVNSLQTVCT 1021
| | | | |
Db 1068 NIYKILLDAVRRHACVLDLPFHQOYWKNPTEFLRYISDPAISLCYSLKAKKNGMSLGAK 1127
| | | | |
Qy 1022 NIYKILLDAVRRHACVLDLPFHQOYWKNPTEFLRYISDPAISLCYSLKAKKNGMSLGAK 1081
| | | | |
Db 1128 GAAGPLPSEAVQWLCHQAFLLKTLRRRTVYVPLIGSLRQOTLSRKLPTTTLAEAAA 1187
| | | | |
Qy 1082 GAAGPLPSEAVQWLCHQAFLLKTLRRRTVYVPLIGSLRQOTLSRKLPTTTLAEAAA 1141
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Db 1188 NPALPSEDFKTIID 1200
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Qy 1142 NPALPSEDFKTIID 1154
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RESULT 9
ID US-08-912-951-324 STANDARD: PRT: 1200 AA.

AC xxxxxx

DE Sequence 324, Application US/08912951

CC Sequence 324, Application US/08912951

CC GENERAL INFORMATION:

CC APPLICANT: Cec'h, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morlin, Gregg B.
CC APPLICANT: Harley, Calvin H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC TITLE OF INVENTION: THERAPEUTIC METHODS
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent in Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC CLASSIFICATION: 435
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Apple, Randolph T.
CC REGISTRATION NUMBER: 36,429
CC REFERENCE/DOCKET NUMBER: 015389-00260005
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 324:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1200 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1200 AA; 134522 MW; 7387257 CN;

Query Match 99.8%; Score 8607; DB 14; Length 1200;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 48 ASTORCVLLRTWEALAPATPAMPAPRCRAVNSLSRSHREVLPATVEYRRLGPGWRRLV 107
| | | | |
Qy 2 ASGORCVLLRTWEALAPATPAMPAPRCRAVNSLSRSHREVLPATVEYRRLGPGWRRLV 61
| | | | |
Db 108 ORGDPAERFALVAOCIVCPMDARPPAPSPROYSCLEIYARVLRICCEGARKNLAF 167
| | | | |
Qy 62 ORGDPAERFALVAOCIVCPMDARPPAPSPROYSCLEIYARVLRICCEGARKNLAF 121
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D	b	168	GFALLDARGCPPEAFPTTSSVSTYLPNTVTALRSGSAMGLLRVGVDVYLHLLARCALE	227
Q	y	122	GFALLDARGGPPEAFPTTSSVSTYLPNTVTALRSGSAMGLLRVGVDVYLHLLARCALE	181
D	b	228	VLVAWSCAYQVCGRPLVQLGAATARPPEPHASGRRRLGGERAMNHVRAGVPLGLPAP	287
Q	y	182	VLVAWSCAYQVCGRPLVQLGAATARPPEPHASGRRRLGGERAMNHVRAGVPLGLPAP	241
D	b	288	GARRGGSASNSLPLPKPRRRGAAPEDEPTVGGGSAHNPGRTRGSDRGCVVSPARA	347
Q	y	242	GARRGGSASNSLPLPKPRRRGAAPEDEPTVGGGSAHNPGRTRGSDRGCVVSPARA	301
D	b	348	EEATSLLEGALGCTHRSHPSVGRONHABPSTSRPRMWDPCRPVVAETNHFLYSSGDKE	407
Q	y	302	EEATSLLEGALGCTHRSHPSVGRONHABPSTSRPRMWDPCRPVVAETNHFLYSSGDKE	361
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Q	y	362	QLRPSFLLSLRPSLTGARBLVETIFLGSRRPMGPTRRRLPRLPQRYOMNRPLFLELGN	421
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Q	y	482	QVYGFVRACTRLRPLPGMGSRNHERREFLNTKKEFISLGNHAKLSLOELTWKMSYBDCAM	541
D	b	588	LRRSEGVCCVPAABERLREEFLAKFLHMLMSVYVELLSRFYVETTFOKNRLEFYRKS	647
Q	y	542	LRRSEGVCCVPAABERLREEFLAKFLHMLMSVYVELLSRFYVETTFOKNRLEFYRKS	601
D	b	648	VMSKIOSIGIRQHLKRVQJRELSEAVEROHNEABPALLTSRLRPIRPPDGLRPIVMNDY	707
Q	y	602	VMSKIOSIGIRQHLKRVQJRELSEAVEROHNEABPALLTSRLRPIRPPDGLRPIVMNDY	661
D	b	708	VGARTFRERKRAERLTSKVKALESVLYNERARARGLLGASVGLDIDHRAMRFEVLYRVA	767
Q	y	662	VGARTFRERKRAERLTSKVKALESVLYNERARARGLLGASVGLDIDHRAMRFEVLYRVA	721
D	b	768	QDPPELXYFVYVDVTGAVDTRPORLREVIASITIKPONTQCVRRXYANVQCAAGHYRKAF	827
Q	y	722	QDPPELXYFVYVDVTGAVDTRPORLREVIASITIKPONTQCVRRXYANVQCAAGHYRKAF	781
D	b	828	KSHYSTILDLDPYKROFVAHLQETSPLRDAVIEBOSSLNEASSGLEFDVFLRFMCHHAYR	887
Q	y	782	KSHYSTILDLDPYKROFVAHLQETSPLRDAVIEBOSSLNEASSGLEFDVFLRFMCHHAYR	841
D	b	888	IRGKSYVOCGIPGOSILSTLLCSLYGDMENKLFAGIRRDGELLRLVDFLLVTPHLTH	947
Q	y	842	IRGKSYVOCGIPGOSILSTLLCSLYGDMENKLFAGIRRDGELLRLVDFLLVTPHLTH	901
D	b	948	AKTEFLRTLVRGVPEYGGCVNLRKVNVNPPVDEMLAGTAVQMPAHGLFPMGCLLDTRR	100
Q	y	902	AKTEFLRTLVRGVPEYGGCVNLRKVNVNPPVDEMLAGTAVQMPAHGLFPMGCLLDTRR	961
D	b	1008	LEVOSDYSSYARTSIRASLTPRNFGRFAGRNMRRLFGVLRKLCHSLTEJLDQVNSLQTVCT	106
Q	y	962	LEVOSDYSSYARTSIRASLTPRNFGRFAGRNMRRLFGVLRKLCHSLTEJLDQVNSLQTVCT	102
D	b	1068	NIYKILLQAVRFHACVYQLPFFHQOVKNPFFELRVISIDTASLQYSLTAKKNNAGMSIGAK	112
Q	y	1022	NIYKILLQAVRFHACVYQLPFFHQOVKNPFFELRVISIDTASLQYSLTAKKNNAGMSIGAK	108
D	b	1128	GAGGGLPSEAVQWMLCHOFLLKTLRHRHTYVPLGLSIRJOTOTOSRKLPECTTTLTALEAAA	118
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ID	US-08-974-549-600	STANDARD:			
AC	xxxxxx				
XX					
XX					
DE	Sequence 600, Application US/08974549				
CC	Sequence 600, Application US/08974549				
CC	GENERAL INFORMATION:				
CC	APPLICANT: Cec'h, Thomas R.				
CC	APPLICANT: Lingner, Joachim				
CC	APPLICANT: Nakamura, Toru				
CC	APPLICANT: Chapman, Karen B.				
CC	APPLICANT: Morin, Gregg B.				
CC	APPLICANT: Harley, Calvin B.				
CC	APPLICANT: Andrews, William H.				
CC	TITLE OF INVENTION: Human Telomerase Catalytic Subunit				
CC	NUMBER OF SEQUENCES: 726				
CC	CORRESPONDENCE ADDRESS:				
CC	ADDRESSEE: Townsend and Townsend and Crew LLP				
CC	STREET: Two Embarcadero Center, Eighth Floor				
CC	CITY: San Francisco				
CC	STATE: California				
CC	COUNTRY: USA				
CC	ZIP: 94111-3834				
CC	COMPUTER READABLE FORM:				
CC	MEDIUM TYPE: Floppy disk				
CC	COMPUTER: IBM PC compatible				
CC	OPERATING SYSTEM: PC-DOS/MS-DOS				
CC	SOFTWARE: PatentIn Release #1.0, Version #1.30				
CC	CURRENT APPLICATION DATA:				
CC	APPLICATION NUMBER: US/08/974,549				
CC	FILING DATE: 19-NOV-1997				
CC	CLASSIFICATION: 536				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/724,643				
CC	FILING DATE: 01-OCT-1996				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/844,419				
CC	FILING DATE: 18-APR-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/846,017				
CC	FILING DATE: 25-APR-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/851,843				
CC	FILING DATE: 06-MAY-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/854,050				
CC	FILING DATE: 09-MAY-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/911,312				
CC	FILING DATE: 14-AUG-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/912,951				
CC	FILING DATE: 14-AUG-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: US 08/915,503				
CC	FILING DATE: 14-AUG-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: WO PCT/US97/17618				
CC	FILING DATE: 01-OCT-1997				
CC	PRIOR APPLICATION DATA:				
CC	APPLICATION NUMBER: WO PCT/US97/17885				
CC	FILING DATE: 01-OCT-1997				
CC	ATTORNEY/AGENT INFORMATION:				
CC	NAME: Apple, Randolph Ted				
CC	REGISTRATION NUMBER: 36,429				
CC	REFERENCE/DOCKET NUMBER: 015389-002610US				
CC	TELECOMMUNICATION INFORMATION:				
CC	TELEPHONE: (415) 576-0200				

CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 600:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1285 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC FEATURE:
CC NAME/KEY: Protein
CC LOCATION: 1..1285
CC OTHER INFORMATION: enterokinase cleavable, His tagged
CC OTHER INFORMATION: thioredoxin moiety and full length hprt
CC SEQUENCE 1285 AA: 143529 MW: 8449280 CN:

Query Match 99.8%; Score 8607; DB 14; Length 1285;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 133 ASTORCVLLRTWEALAPATPAMPAPRCRAVSLRSHYREVLPLATFVRRLGPOGMRLV 192
QY 2 ASGRCVLLRTWEALAPATPAMPAPRCRAVSLRSHYREVLPLATFVRRLGPOGMRLV 61
Db 193 QRGDPAARALVAOCVCPMDARPPAPSPROYSCLEKELARVLOKCEGAKNVLA 252
QY 62 QRGDPAARALVAOCVCPMDARPPAPSPROYSCLEKELARVLOKCEGAKNVLA 121
Db 253 GFALLDARGGPPEAFTTSVRSYLPNTYTDALRGSGANGLLRRGDVYLHLLARCALF 312
QY 122 GFALLDARGGPPEAFTTSVRSYLPNTYTDALRGSGANGLLRRGDVYLHLLARCALF 181
Db 313 VLVAPSCAYQVCGPPLYLQGAATQARPPHASGPRRLGCEERAMNHSVREAGVPLGLDAP 372
QY 182 VLVAPSCAYQVCGPPLYLQGAATQARPPHASGPRRLGCEERAMNHSVREAGVPLGLDAP 241
Db 373 GARRRGSGASISLPLPKPRRGAPEPERTPYGOGSMAHPGTRGSPRGFCVSPAPAPA 432
QY 242 GARRRGSGASISLPLPKPRRGAPEPERTPYGOGSMAHPGTRGSPRGFCVSPAPAPA 301
Db 433 EEAATSLGALSSTRHSHPVSGRQHAGAPSTSRPPRPMDPCPPYAAETKHELYSSGDKE 492
QY 302 EEAATSLGALSSTRHSHPVSGRQHAGAPSTSRPPRPMDPCPPYAAETKHELYSSGDKE 361
Db 493 QLRSEFLLSLRPSLTGARRLYETIFLGSRPWMPGTPRRLLPRLPORYQMRPLLELLGN 552
QY 362 QLRSEFLLSLRPSLTGARRLYETIFLGSRPWMPGTPRRLLPRLPORYQMRPLLELLGN 421
Db 553 HAOCYGVLLKTHCHPLRAAVTPAAGVCAREKPGSVAAPEEDTDPRLUYOLLRQHSPPW 612
QY 422 HAOCYGVLLKTHCHPLRAAVTPAAGVCAREKPGSVAAPEEDTDPRLUYOLLRQHSPPW 481
Db 612 QYGVGVRACLRVLPPGLMGRNHNRRFLRNTKKEISLGKNAKLSLOELTWKMSVRCDAW 672
QY 482 QYGVGVRACLRVLPPGLMGRNHNRRFLRNTKKEISLGKNAKLSLOELTWKMSVRCDAW 541
Db 673 LRRSGVGCVPAAERLREBEILAKLHMLMSYVVVLLRSEFYVTETTPQKNRLEFYRKS 732
QY 542 LRRSGVGCVPAAERLREBEILAKLHMLMSYVVVLLRSEFYVTETTPQKNRLEFYRKS 601
Db 732 VMSKIOSIGIRHOKLRVQLRELSEAEVROHREARPALLTSLRFLPKPDGLPILNMIV 792
QY 602 VMSKIOSIGIRHOKLRVQLRELSEAEVROHREARPALLTSLRFLPKPDGLPILNMIV 661
Db 793 VGARTFRERKRAERLTSVKALFSYLNTERARPPGLGASVGLDDIRAMRTFYLRYRA 852
QY 662 VGARTFRERKRAERLTSVKALFSYLNTERARPPGLGASVGLDDIRAMRTFYLRYRA 721
Db 853 QDPPELTVKAVDVTGAYDTLPDRLTEVIASIIKPQNTCYVRRYAVVQKAHGHVRAAF 912
QY 722 QDPPELTVKAVDVTGAYDTLPDRLTEVIASIIKPQNTCYVRRYAVVQKAHGHVRAAF 781
Db 913 KSHVSTLTDLPYMRQFAHLOETSPRLDAVYIEOSSSLNEASSGLFDVFLRFMKHNHVR 972

QY 782 KSHVSTLTDLPYMRQFAHLOETSPRLDAVYIEOSSSLNEASSGLFDVFLRFMKHNHVR 841
Db 973 IRGKSYVOCQGIPOGSIITSLCISLCYGDMEKMLFAGIRBDGLRLVDFLVTPLH 1032
QY 842 IRGKSYVOCQGIPOGSIITSLCISLCYGDMEKMLFAGIRBDGLRLVDFLVTPLH 901
Db 1033 AKTFLRLVRCVPEYGCYVNLKRTVNFVPEDEALGTAAYQMPAHGLFPWCGLLDTRT 1092
QY 902 AKTFLRLVRCVPEYGCYVNLKRTVNFVPEDEALGTAAYQMPAHGLFPWCGLLDTRT 961
Db 1093 LEVSDSVYARTSIRASTIRNRECFKGRNMRKLFGLRLKCHSLFLDLOVNSLOVCT 1152
QY 962 LEVSDSVYARTSIRASTIRNRECFKGRNMRKLFGLRLKCHSLFLDLOVNSLOVCT 1021
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QY 1022 NIYKILLQAYRFACVQLQPLFHQOVKNPTEFLRVISDTASLCYSILKAKNAGMSIGAK 1081
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QY 1082 GAAGPLPSEAVQMLCHQAFLLKTRHRYTVPLIGSLRTAQTOLSKRLPGTTTALA 1141
Db 1273 NPALPSDFKTLTD 1285
QY 1142 NPALPSDFKTLTD 1154

RESULT 11
ID US-08-912-951-314 STANDARD; PRT: 1285 AA.
AC xxxxxx
DT
XX
DE Sequence 314, Application US/08912951
CC Sequence 314, Application US/08912951
CC GENERAL INFORMATION:
CC APPLICANT: Cecch, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morlin, Gregg B.
CC APPLICANT: Harley, Calvin
CC APPLICANT: Andrews, William H.
CC TITLE OF INVENTION: HUMAN TELOMERASE CATALYTIC SUBUNIT: DIAGNOSTIC AND
CC TITLE OF INVENTION: THERAPEUTIC METHODS
CC NUMBER OF SEQUENCES: 335
CC CORRESPONDENCE ADDRESS:
CC ADDRESS: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, 8th Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: United States of America
CC ZIP: 94111
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/912,951
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC CLASSIFICATION: 435
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC CLASSIFICATION: 435

QY	602	VMSLQSIGIRQLKKNVQLRELSAEVRORHRRRPNLLTSRLRTIPKPDGLRPYIMNDIV	661
Db	793	VGATFRERKRRAERLTSRVKALFSLVLYTERARRPGLLGASVLGLDDIHRAWTEFLRYRA	852
QY	662	VGATFRERKRRAERLTSRVKALFSLVLYTERARRPGLLGASVLGLDDIHRAWTEFLRYRA	721
Db	853	QDPPEPLYFKVAVNTGAYDTIPDDRLETVIASIKQNTCYCRRYAVVOKAAGHYKRAF	912
QY	722	QDPPEPLYFKVAVNTGAYDTIPDDRLETVIASIKQNTCYCRRYAVVOKAAGHYKRAF	781
Db	913	KSHSTLTLDOPMRPOVAHLDETSPLRDAVVITEOSSLINEASSGLFDVLEFMCHHAVR	972
QY	782	KSHSTLTLDOPMRPOVAHLDETSPLRDAVVITEOSSLINEASSGLFDVLEFMCHHAVR	841
Db	973	IRGSYVOCGIRPGSILSTLCSLCYGDMENKLFAGIRBDLLRLVDDEFLTVPPLTLH	1033
QY	842	IRGSYVOCGIRPGSILSTLCSLCYGDMENKLFAGIRBDLLRLVDDEFLTVPPLTLH	901
Db	1033	AKTFLRTLVRNGVEPYCGVNLKRTVYNFEVEDALGGTAFYOMPAHGJFPWCGLLDTRT	1093
QY	902	AKTFLRTLVRNGVEPYCGVNLKRTVYNFEVEDALGGTAFYOMPAHGJFPWCGLLDTRT	961
Db	1093	LEVOSDVSSAFKRSISASLTFNNGFFAAGNMNRKLFGVLRKCHSLFDLDQVNSIQYCT	1155
QY	962	LEVOSDVSSAFKRSISASLTFNNGFFAAGNMNRKLFGVLRKCHSLFDLDQVNSIQYCT	1023
Db	1153	NIXYITLLQVYRFHACYLDPFHQQVWKMPTEFLRVISDTASLCYSILKAKNAGSLGAK	1212
QY	1022	NIXYITLLQVYRFHACYLDPFHQQVWKMPTEFLRVISDTASLCYSILKAKNAGSLGAK	1088
Db	1213	GAAGPLPSEAVOWMLCQAFLKLTKTRRRVTYPVPLGSLRTAQOTLSRKLPGLTTALEAAA	1277
QY	1082	GAAGPLPSEAVOWMLCQAFLKLTKTRRRVTYPVPLGSLRTAQOTLSRKLPGLTTALEAAA	1144
Db	1273	NPALPSDFKITLD 1285	
QY	1142	NPALPSDFKITLD 1154	
RESULT 12			
ID	US-08-911-312A-32	STANDARD;	PRT; 1285 AA.
XX	xxxxxx		
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DE			
XX			
CC	Sequence 32, Application US/08911312A		
CC	GENERAL INFORMATION:		
CC	APPLICANT: Cech, Thomas R.		
CC	APPLICANT: Lingner, Joachim		
CC	APPLICANT: Nakamura, Toru		
CC	APPLICANT: Chapman, Karen B.		
CC	APPLICANT: Morin, Gregg B.		
CC	APPLICANT: Harley, Calvin B.		
CC	APPLICANT: Andrews, William		
CC	TITLE OF INVENTION: Telomerase Reverse Transcriptase		
CC	NUMBER OF SEQUENCES: 171		
CC	CORRESPONDENCE ADDRESS:		
CC	ADDRESSEE: Townsend and Townsend and Crew LLP		
CC	STREET: Two Embarcadero Center, Eighth Floor		
CC	CITY: San Francisco		
CC	STATE: California		
CC	COUNTRY: USA		
CC	ZIP: 94111-3834		
CC	COMPUTER READABLE FORM:		
CC	MEDIUM TYPE: Floppy disk		
CC	COMPUTER: IBM PC compatible		
CC	OPERATING SYSTEM: PC-DOS/MS-DOS		
CC	SOFTWARE: PatentIn Release #1.0, Version #1.30		
CC	CURRENT APPLICATION DATA:		

CC APPLICATION NUMBER: US/08/911,312A
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Elmhorn, Gregory P.
CC REGISTRATION NUMBER: 36,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 32:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1285 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1285 AA: 143529 MW: 8449280 CN:
SQ
Query Match 99.8%; Score 8607; DB 14; Length 1285;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 133 ASTORCVLRTWEALAPTPMPAPRCRAVRSLSRSHYREVLPLATVRRLGPOGMRLV 192
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QY 62 QRGDPAFRAALVAOCLVCPMDARPPAPSFROYSCLEKELVARYLORLCERGAKNVLA 121
Db 253 GFALDARGGPPPEAFTTSVRSYLPNTVTDALRGSGANGLLRRVGGDVLVHLARCALF 312
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QY 362 QLRPSFLLSRLRPSTTGARRLVETIFLGSRRPMMPTFRRLRLRQRYQAMPRLLELLGN 421
Db 553 HAQCPYGLTKHGPLRAAVTPAAGVCAREKPKQGSVAAPBEEDTDPRRLVQLLRQHSHPW 612

QY 422 HAQCPYGLTKHGPLRAAVTPAAGVCAREKPKQGSVAAPBEEDTDPRRLVQLLRQHSHPW 481
Db 613 QVYGFVBAQLRLVPPGLMGSRHNERFRLNNTKFFISLGHAKLSLOELTWKMSVRDCAN 672
QY 482 QVYGFVBAQLRLVPPGLMGSRHNERFRLNNTKFFISLGHAKLSLOELTWKMSVRDCAN 541
Db 673 LRRSPGVGCYPAAEHRLREELIAKFLHMLMSVYVELLRSEFFVYTTETFOKNRLFEYRKS 732
QY 542 LRRSPGVGCYPAAEHRLREELIAKFLHMLMSVYVELLRSEFFVYTTETFOKNRLFEYRKS 601
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QY 602 VMSLQSIGIRHLLKRYQLRELSAEVROHREARPALTLTSLRPLRPDGLRPLVNDYV 661
Db 793 VGARTFRERKRAERLTSSRYALFSLVNYERARRPGLLGASVGLDDIHRAMRTFVLVRA 852
QY 662 VGARTFRERKRAERLTSSRYALFSLVNYERARRPGLLGASVGLDDIHRAMRTFVLVRA 721
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QY 722 QDPPELIFYKVDYTGAYDTIPQDRLTEVIASITKPNQYCVRRYAVVQRAAGHVRKAF 781
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QY 782 KSHVSTLTDLPYMRQVAPLQETSPURDAVYEQSSLSLEASSGLDFVFLRFCHHAVR 841
Db 973 IRGSGYVOCGIPQGSILSTLCSLCYGDMEKFLAGIRRDGLLRVLDVFLVTPPLTH 1032
QY 842 IRGSGYVOCGIPQGSILSTLCSLCYGDMEKFLAGIRRDGLLRVLDVFLVTPPLTH 901
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QY 902 AKTFLRLVNGVPEYGCYVNLKRTVNFPEYDEALGSTAFVQMPAHGLFPWCGILLDTRT 961
Db 1093 LEVQSDYSYARTSIRASLTFNNGEFKGRMMRRKLFGLRLKCHSLFLDLOVNSIQVCT 1152
QY 962 LEVQSDYSYARTSIRASLTFNNGEFKGRMMRRKLFGLRLKCHSLFLDLOVNSIQVCT 1021
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QY 1022 NIVKILLQAVRFHACVQLQPFHQVWKNPTFFLRVVISDTASLCYSILKAKNMGMSIGAK 1081
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QY 1082 GAAGPLPSEAVQWICHQAFLLKLRHRYVYVPLIGSLRTKQOTQSLKRLPGTTTLAEAAA 1141
Db 1273 NPALPSDFKTIID 1285
QY 1142 NPALPSDFKTIID 1154
RESULT 13
ID US-08-911-312-32 STANDARD; PRt: 1285 AA.
AC xxxxxx
DT
XX
XX
DE Sequence 32, Application US/08911312
CC Sequence 32, Application US/08911312
CC GENERAL INFORMATION:
CC APPLICANT: Cech, Thomas R.
CC APPLICANT: Lingner, Joachim
CC APPLICANT: Nakamura, Toru
CC APPLICANT: Chapman, Karen B.
CC APPLICANT: Morin, Gregg B.
CC APPLICANT: Harley, Calvin B.
CC APPLICANT: Andrews, William
CC TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC NUMBER OF SEQUENCES: 170
CC CORRESPONDENCE ADDRESS:

CC ADDRESSEE: Townsend and Townsend and Crew LLP
CC STREET: Two Embarcadero Center, Eighth Floor
CC CITY: San Francisco
CC STATE: California
CC COUNTRY: USA
CC ZIP: 94111-3834
CC COMPUTER READABLE FORM:
CC MEDIUM TYPE: Floppy disk
CC COMPUTER: IBM PC compatible
CC OPERATING SYSTEM: PC-DOS/MS-DOS
CC SOFTWARE: Patent Release #1.0, Version #1.30
CC CURRENT APPLICATION DATA:
CC APPLICATION NUMBER: US/08/911,312
CC FILING DATE: 14-AUG-1997
CC CLASSIFICATION: 536
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/724,643
CC FILING DATE: 01-OCT-1996
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/844,419
CC FILING DATE: 18-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/846,017
CC FILING DATE: 25-APR-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/851,843
CC FILING DATE: 06-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/854,050
CC FILING DATE: 09-MAY-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/912,951
CC FILING DATE: 14-AUG-1997
CC PRIOR APPLICATION DATA:
CC APPLICATION NUMBER: US 08/915,503
CC FILING DATE: 14-AUG-1997
CC ATTORNEY/AGENT INFORMATION:
CC NAME: Einhorn, Gregory P.
CC REGISTRATION NUMBER: 38,440
CC REFERENCE/DOCKET NUMBER: 015389-002500US
CC TELECOMMUNICATION INFORMATION:
CC TELEPHONE: (415) 576-0200
CC TELEFAX: (415) 576-0300
CC INFORMATION FOR SEQ ID NO: 32:
CC SEQUENCE CHARACTERISTICS:
CC LENGTH: 1285 amino acids
CC TYPE: amino acid
CC STRANDEDNESS:
CC TOPOLOGY: linear
CC MOLECULE TYPE: protein
CC SEQUENCE 1285 AA; 143529 MW; 8449280 CN;
SQ
Query Match 99.8%; Score 8607; DB 14; Length 1285;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;
Matches 1152; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 242 GARRGGSASRSRLPLPRPRRGAAPPEPRTPVGGGSAHNGRTGPDRCGCVVSPARPA 301
DB 433 EEATSLGALSGTRHSHPSVGRQHHAGPSTSRPPRWDTPCPPVYETKHFLYSSDKE 492
QY 302 EEATSLGALSGTRHSHPSVGRQHHAGPSTSRPPRWDTPCPPVYETKHFLYSSDKE 361
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QY 362 QLRPSFLSSLRPSLTGARLVETIFLGSRPMMGPTRRLPRQRYQMRLPELLEGN 421
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DB 613 QYGFVACLRRLVPPGLMGSRHNERFLNNTKFSIGKHAKSLOELTWMKSVRCAM 672
QY 482 QYGFVACLRRLVPPGLMGSRHNERFLNNTKFSIGKHAKSLOELTWMKSVRCAM 541
DB 673 LRNSPGVGVPAAEHRLREBILAKFLHMLSVYVELLRSEFYVETTFQKNRLEFYRKS 732
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QY 602 VWSKLSIGIRQHLKRYQLRELSAEVROHREARPALTSRLRPIPRPDGLRPVNMDDY 661
DB 793 VGARTFRERKRAERLTSRVKALFSVLNTERARRPGLLGASVGLGDDIHRMRPFVLRVA 852
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DB 853 QDPPPELYEYKVDYTGAYDTIPQDRLTEVTASIIKPPQNTYCVRRYAVVQRAAGHVRKAF 912
QY 722 QDPPPELYEYKVDYTGAYDTIPQDRLTEVTASIIKPPQNTYCVRRYAVVQRAAGHVRKAF 781
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QY 782 KSHVSTLTDQPYWROVVAHQETSPLRDVAVVEOSSLWEASSGLDFVLRFCYCHAVR 841
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QY 842 IRGKSYVQCGIPIQGSILSTLCSLCYGDMEKLFAGIRRDGILLRLVDDFLVTPHLTH 901
DB 1033 AKTFELTLVGRVPEYGCYVNLKRTVNFPEDEALGTAEVQMPAHGLFPWCGILLDTRT 1092
QY 902 AKTFELTLVGRVPEYGCYVNLKRTVNFPEDEALGTAEVQMPAHGLFPWCGILLDTRT 961
DB 1093 LEVQSDYSSTARTSIRASLTFNNGFKAGRMRRKLFGLVLRKCHSLFLDQVNSLQTVCT 1152
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RESULT 14
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AC xxxxxx
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DE Sequence 55, Application US/08911312A

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CC      Sequence 55, Application US/08911312A
CC      GENERAL INFORMATION:
CC      APPLICANT: Cech, Thomas R.
CC      APPLICANT: Lingner, Joachim
CC      APPLICANT: Nakamura, Toru
CC      APPLICANT: Chapman, Karen B.
CC      APPLICANT: Morin, Gregg B.
CC      APPLICANT: Harley, Calvin B.
CC      APPLICANT: Andrews, William
CC      TITLE OF INVENTION: Telomerase Reverse Transcriptase
CC      NUMBER OF SEQUENCES: 171
CC      CORRESPONDENCE ADDRESS:
CC      ADDRESSEE: Townsend and Townsend and Crew LLP
CC      STREET: Two Embarcadero Center, Eighth Floor
CC      CITY: San Francisco
CC      STATE: California
CC      COUNTRY: USA
CC      ZIP: 94111-3834
CC      COMPUTER READABLE FORM:
CC      MEDIUM TYPE: Floppy disk
CC      COMPUTER: IBM PC compatible
CC      OPERATING SYSTEM: PC-DOS/MS-DOS
CC      SOFTWARE: PatentIn Release #1.0, Version #1.30
CC      CURRENT APPLICATION DATA:
CC      APPLICATION NUMBER: US/08/911,312A
CC      FILING DATE: 14-AUG-1997
CC      CLASSIFICATION: 536
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/724,643
CC      FILING DATE: 01-OCT-1996
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/844,419
CC      FILING DATE: 18-APR-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/846,017
CC      FILING DATE: 25-APR-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/851,843
CC      FILING DATE: 06-MAY-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/854,050
CC      FILING DATE: 09-MAY-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/912,951
CC      FILING DATE: 14-AUG-1997
CC      PRIOR APPLICATION DATA:
CC      APPLICATION NUMBER: US 08/915,503
CC      FILING DATE: 14-AUG-1997
CC      ATTORNEY/AGENT INFORMATION:
CC      NAME: Elmhorn, Gregory P.
CC      REGISTRATION NUMBER: 38,440
CC      REFERENCE/DOCKET NUMBER: 015389-002500US
CC      TELECOMMUNICATION INFORMATION:
CC      TELEPHONE: (415) 576-0200
CC      TELEFAX: (415) 576-0300
CC      INFORMATION FOR SEQ ID NO: 55:
CC      SEQUENCE CHARACTERISTICS:
CC      LENGTH: 1407 amino acids
CC      TYPE: amino acid
CC      STRANDEDNESS:
CC      TOPOLOGY: linear
CC      MOLECULE TYPE: protein
CC      SEQ      SEQUENCE 1407 AA; 157668 MW; 10134798 CN;
Cc      Query Match      99.6%; Score 8590; DB 14; Length 1407;
Cc      Best Local Similarity 99.7%; Pred. No. 0.00e+00;
Cc      Matches 1150; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Db      255  ASTGCCTLLRTWEALAPATPAMPAPRRCRAVRSLLRSHYREVLPATLAVFVRLGPOGRRLV 314
Cc      1111111111111111111111111111111111111111111111111111111111111111
Cc      07  2  ASGGRCVLLKRTWEALAPATPAMPAPRRCRAVRSLLRSHYREVLPATLAVFVRLGPOGRRLV 61
Cc      315  ORGDPAPAFRALVAOCLVCPMDAPPAPAPSPFROVSCIKELVARVILQRLCEGAKNVLAF 374

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QY	62	QRCBPAAARLVAACLVCPWDAPRPPAAASFROVSCJELVARYVLQRCERCAKNVLA	121
Db	375	GFALLDGRARGPPEFFTTTSVSYLPNTVTALNGSGMWGLLRVDDVYLHILARCA	434
QY	122	GFALLDGRARGPPEFFTTTSVASYLPNTVTALNGSGMWGLLRVDDVYLHILARCA	181
Db	435	VLVAPSCAYQVCBPPLVOLGAATOARPPPHASGPRRLGCEERAMNHSVREAGVPLCLP	494
QY	182	VLVAPSCAYQVCBPPLVOLGAATOARPPPHASGPRRLGCEERAMNHSVREAGVPLCLP	241
Db	445	GARRGGSASASLPLPKRPRRGARPEEBRTPVGOGSAHNGRTRGSDRCFCVSPARPA	554
QY	242	GARRGGSASASLPLPKRPRRGARPEEBRTPVGOGSAHNGRTRGSDRCFCVSPARPA	301
Db	555	BEATLEBALGCTHSHSPSVOROHADPPSTSRPPRMODPCPPYAETKHFVLSGDE	614
QY	302	BEATLEBALGCTHSHSPSVOROHADPPSTSRPPRMODPCPPYAETKHFVLSGDE	361
Db	615	QLRPSFLLSLRPSLITGARLVETIFLGSBPMGTPRRLRPLORYQMORPLELILAN	674
QY	362	QLRPSFLLSLRPSLITGARLVETIFLGSBPMGTPRRLRPLORYQMORPLELILAN	421
Db	675	HAOCPTYLLTTCRPLRAAYTPAAGVCAREKPOGSAAPREEDTDPRRLVOLLROHSPW	734
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QY	482	QVYGVFRACLRVLPDGLMGRHBERFLNTKKTSIGHAALSLQELTWKMSVDCAM	541
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QY	542	LRRSPGVACPAAEHRUREELIAKFLMWLSVYVELLRFSFVYTEETQKNLFFRPS	601
Db	855	VMSKIQSIGIQHUKRVQJRELSEAEVROHREARPALTLRLRFTEKPDGLRIVNMIDY	914
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Db	915	VGARFREREKAEELTRVVALSPVLTNEBARPGILGASVGLDDIHNAMRFTVLRYVA	974
QY	662	VGARFREREKAEELTRVVALSPVLTNEBARPGILGASVGLDDIHNAMRFTVLRYVA	721
Db	975	QDPPELTFYKVDVTGAYDTPIDORLEUVASLTKPONTVCARYAVVOVKAAGHNRKAF	1033
QY	722	QDPPELTFYKVDVTGAYDTPIDORLEUVASLTKPONTVCARYAVVOVKAAGHNRKAF	781
Db	1035	KSHVSTLTDLOPYRKQFVAHLQETSPLRDAVTEOSSLSNEASSGLEDFVLFREMHNAVR	1099
QY	782	KSHVSTLTDLOPYRKQFVAHLQETSPLRDAVTEOSSLSNEASSGLEDFVLFREMHNAVR	841
Db	1095	IRGSIYVOCOSIPGOSLITLILSLICGDMENKLPAGIRRDGILLVYDDELTYPHLH	1155
QY	842	IRGSIYVOCOSIPGOSLITLILSLICGDMENKLPAGIRRDGILLVYDDELTYPHLH	901
Db	1155	AKTEFLTRLVRCVPYEGCVNMLRKTVMYFPEDEBALGTAFOVMPAHGLFPWCGILLDTET	1211
QY	902	AKTEFLTRLVRCVPYEGCVNMLRKTVMYFPEDEBALGTAFOVMPAHGLFPWCGILLDTET	961
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Db	1275	NIYKILLLOAVRFACVLOLPFRHOQWKNFTFLRYISDTSLSCTISILAKANNAGSLGAK	1333
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Db	1335	GAAGPLPSEAVOMLCHOAFLLKLTRHVVTVVPLLGSLRTAOTOLSKRLGTTLLALEAA	1399
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OY 1142 NPALPSDFKTIID 1154

RESULT - 15
ID US-08-911-312-55 STANDARD; PRT; 1407 AA.
XX
AC xxxxxx
XX
DE
XX
Sequence 55, Application US/08911312
Sequence 55, Application US/08911312
GENERAL INFORMATION:
APPLICANT: Cech, Thomas R.
APPLICANT: Lingner, Joachim
APPLICANT: Nakamura, Toru
APPLICANT: Chapman, Karen B.
APPLICANT: Morin, Gregg B.
APPLICANT: Harley, Calvin B.
APPLICANT: Andrews, William
TITLE OF INVENTION: Telomerase Reverse Transcriptase
NUMBER OF SEQUENCES: 170
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
CITY: San Francisco
STATE: California
COUNTRY: USA
ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/911,312
FILING DATE: 14-AUG-1997
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/854,050
FILING DATE: 09-MAY-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/912,951
FILING DATE: 14-AUG-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/915,503
FILING DATE: 14-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: Elmhorn, Gregory P.
REGISTRATION NUMBER: 38,440
REFERENCE/DOCKET NUMBER: 015389-002500US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 55:
SEQUENCE CHARACTERISTICS:
LENGTH: 1407 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear

CC MOLECULE TYPE: protein
SQ SEQUENCE 1407 AA; 157668 MW; 10134798 CN;

Query Match 99.6%; Score 8590; DB 14; Length 1407;
Best Local Similarity 99.7%; Pred. No. 0.00e+00;
Matches 1150; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 255 ASTQRCVLLRTWEALAPATPMPAPRCRAVRSLLRSHYREVLPLATFVRRLGPGQWRLV 314
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OY 2 ASGQRCVLLRTWEALAPATPMPAPRCRAVRSLLRSHYREVLPLATFVRRLGPGQWRLV 61
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OY 662 VGARTFRREKRAERLTSVKALFSVLNTERARRPGLIGASVGLDDIHRAKRTFVLRYRA 721
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OY 782 KSHVSTLTDLPQYMQFAHQLQETSPILDVAVYIEOSSSLNASSGLDFVFLRFKCHNAVR 841
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OY 842 IRGKSYVOCQGIPOGSIISTLSCISLCYDGMENKLFAGIRRDGLLRLVDDDFLVTPLH 901
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OY 902 AKTEFLRTLVKGVPEYGVVNLKTYVNFVDEDALGTAIVQMPAHGLFPWCGLLDTRT 961
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QY 962 LEVQSDYSSYARTSIRASLTENRGFKAGRMRRKLFVLRKCHSLFLDQVNSLOTVCT 1021

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 Job time : 187 secs.